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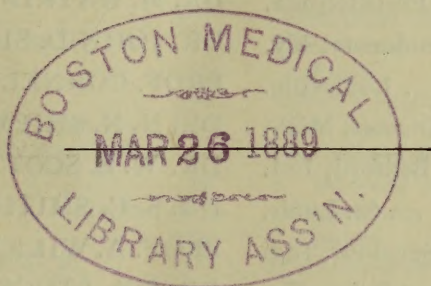
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PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN-
TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND
ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES-
SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF,
AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT
MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE
SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION
AND SUBSTANCE."—BACON.

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No. 1.

GENERAL MEDICINE.

OBSERVATIONS

ON DIABETES MELLITUS.

BY WILLIAM BAILEY,
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ca and Therapeutics, and
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As the name indi-
cates this disease is es-
pecially characterized
by the presence of
sugar in the urine or
glycosuria.

It is no wonder that
for many years the
disease was thought to
be a disease of the kid-

neys, inasmuch as the chief manifestations
of the disease concerned their functions.

This view was forever set at rest by
Claude Bernard, whose experiments showed
that glycosuria could be produced at will by
puncturing, in the lower animals, the floor
of the fourth ventricle of the brain, a space
which since those observations has come to
be regarded and styled the "diabetic area."

Before Bernard's experiments it was
thought that diabetes mellitus was in some
way dependent upon disease in the liver,
especially after physiology determined its
glycogenic functions.

By easy transition the seat of disease was
transferred to the nervous centers, when it
was established that artificial glycosuria
could be produced at will by irritation of
this diabetic area.

Even yet, both the etiology and pathology
are in grave doubt, if not entirely undeter-
mined.

This doubt will continue in force till the
physiology of the subject is better develop-

ed. It seems apparent that the irritation of
the diabetic area is reflected upon the liver
so as to modify the amount and circulation
of its blood, and in this way its function.

The blood in health contains more or less
sugar for use in the economy, and it is stated
that the kidneys will always eliminate it
when the amount exceeds three parts to
1,000.

Sugar may no doubt be introduced direct-
ly into the blood by absorption from the ali-
mentary canal without passing through the
liver, depending of course upon what route
it takes. This may be the case when the
diet consists too largely of sugar or other
carbo-hydrates.

I do not think that those cases in which
sugar appears in the urine, evidently due to
excess of sugar introduced into the system,
should be classed as typical diabetes mellitus.

These cases are not dependent upon any
lesion of the nervous system; nor indeed is
there any. The facts are that too much
sugar by indiscretion has been introduced,
and as the kidneys are responsible for the
integrity of the blood, they simply remove it.

In the typical case, in my judgment, we
have an influence transmitted from the dia-
betic area to the liver, resulting in the pass-
ing of sugar in excess into the general cir-
culation.

This effect is the same, whether the lesion
be seated in this diabetic area at the base of
the brain or whether some sensation is trans-
mitted to this area, and then reflex influence
sent to the liver, producing such changes in

circulation and function that glycosuria is developed.

The lesion need not be in this area, but may be situated anywhere, so that its nervous connection with it may result in this influence, being sent out to the liver from this center.

It has been shown that if you cut the pneumo-gastric nerve, and irritate the distal end that no glycosuria is produced; yet, if you irritate the proximal end of this cut nerve, you will send influence to the brain which will be reflected upon the liver in such manner as to develop glycosuria.

Why may not the irritation of any distribution of the par vagus be taken up to the center and reflected in this way?

Indeed we find glycosuria developed by impeded respiration, etc., where influences are sent up by the pneumo-gastric nerve. Many observers have found the disease in connection with organic disease in the pancreas.

Glycosuria is found under many circumstances, but is not of grave import unless dependent upon involvement of the diabetic area either by lesion of the area itself or by lesion having nervous connection with it.

The disease is found most frequently in males between the ages of thirty and sixty years, yet it occurs in those much younger. Prognosis is rather more favorable in persons of forty and fifty years than in children.

Diagnosis is not often difficult, as the symptomology is very distinct and characteristic. The first indications are an increased frequency of micturition with a largely increased volume of urine of high specific gravity. Very soon great thirst is developed, with dryness and redness of the mucous membrane of the mouth, tongue, and fauces. The skin becomes dry, harsh, and deficient in secretion. Appetite may remain good or even be increased, and yet emaciation and debility rapidly progress.

The specific gravity of the urine may become very high notwithstanding the increas-

ed volume, usually 1,030 to 10,050, due to the sugar eliminated. The usual tests with copper will soon make the diagnosis complete. The increased function of the kidneys soon engenders changes in these organs. They become enlarged and take on changes according to circumstances. Complications are numerous, especially involving the lungs and skin.

Some form of phthisis or pneumonia, and in the skin boils, carbuncles, or some of the eruption diseases.

Eczema is produced when the sugar comes in contact with the person. Duration of the disease varies from a few months to several years.

In addition to the above symptoms we have many others.

The temperature is usually below par, and when fever occurs from any cause it is not characterized by hyper-pyrexia.

Acetonæmia is sometimes developed with all of its train of symptoms, terminating in so-called diabetic coma.

Many disturbances of vision with various lesions of the eye also occur.

Treatment.—Treatment is usually divided into that that is medicinal, dietetic, and hygienic. Authorities place the greatest stress upon the dietetic, excluding from the dietary all articles containing sugar or any thing easily converted into it.

An admirably arranged dietary may be found either in the excellent article on this subject found in the second volume of Pepper's System of Medicine, by Prof. Tyson; or in the paper read by Prof. Austin Flint, Jr., before the American Medical Association in 1884. These admirable papers furnish all the information desired on this point.

I do not think we shall ever be masters of the situation in the management of this disease until we are able to define and locate the essential lesion in each particular case, and by medicinal treatment eradicate the same; at the same time allowing the patient unrestricted diet.

No doubt, by dietetics, we may to a great

extent remove the prominent symptom glycosuria from the case.

It is parallel to a restraint in a prison and unwilling abstinence from alcoholics for the cure of drunkenness.

The disease is cured only so long as the restraint is compulsory, the demon appetite continuing in force.

While I recognize that dietary is essential for the welfare of the patient, yet it is desirable that we should be able to remove the condition upon which the perverted function of the liver depends. Hence I am inclined to place more stress upon the medicinal treatment.

Among the means of treatment I am inclined to place the use of codeia prominent. Next to or perhaps equal to this I shall place the bromide of arsenic, as introduced by Clemens and so fully appreciated by Prof. Flint, Jr.

Various remedies from time to time have been successfully used by many physicians in the management of this disease. Among the best we have ergot, the bromides, salicylates, etc.

The hygienic management is very important, and consists in surrounding the patient with conditions most favorable to health. Ventilated apartments, especially for sleeping; moderate exercise in the open air. Especial care should be taken of the skin, by proper clothing, bathing, and friction.

I have purposely avoided giving the minutia of the tests for sugar, the dietary, etc., as not being proper in a paper of this length. All these can be readily found in the papers already referred to, and also in many of the authorities.

DISEASE germs are not to be found far away from their places of nativity. Such matters as are likely to support the growth of septic germs should be destroyed, and never allowed to accumulate. This precaution enables Mr. Tait to reach the unfortunately dangerous conclusion that such germs do not exist.

DIPHTHERITIC AND TRUE CROUP.

BY J. M. CLEMENS,
M. D.

LOUISVILLE.

[Read before the Medico-
Chirurgical Society of
Louisville, June 18,
1886.]

Notwithstanding the great strides scientific research has made in the etiology and pathology of disease in the last decade, eminent authority, therefore the medical profession at large, is divided on the question of identity or non-identity of laryngeal diphtheria, or, more properly speaking, diphtheritic croup, and true croup. This fact suggested to me the propriety of inaugurating a discussion of the subject by this society.

The importance of an early recognition of the fact that the physician has to deal with an infectious or contagious disease can not be overestimated, as the welfare and safety, not only of the household, but the community are at stake. If he is fortunate enough to be able to eliminate these characteristics from the case in hand, he prevents much needless alarm.

It is no uncommon thing in medical circles to hear diphtheritic croup and true croup used as convertible terms. In the section on diseases of children at the recent meeting of the American Medical Association at St. Louis, I heard distinguished gentlemen advocating their identity. Prof. Johann Steiner, of Prague, author of the article on croup in Ziemssen's great work, says, "The attempt to distinguish croup and diphtheria as two entirely distinct diseases has been unsuccessful, both from an anatomical and a clinical stand point; indeed there are many reasons for supposing that these two affections are only varieties and modifications of one and the same process, which in consequence of some special influences and collateral causes, as yet imperfectly understood, makes its appearance at one time as *croup*, at another as *diphtheria*; now in a sporadic form, now as a widespread epidemic."

Prof. A. Jacobi, author of both the article on Pseudo Membranous Laryngitis and the article on Diphtheria in Pepper's System

of Medicine, falls into the same errors of observation that Professor Steiner did. He recognizes the distinction made by other observers in the pathology of laryngeal exudates, but fails to attach any thing more than a technical importance to it. He says: "Pseudo-membranous laryngitis is characterized by the presence *on* and *in* the mucous membrane of a pseudo-membrane of a whitish-gray color, various consistency and different degrees of attachment. It has been called croupous when it was lying on the mucous membrane, without changing much or at all the subjacent epithelium and could be removed without any difficulty. It has been called diphtheritic when it was imbedded into the mucous membrane and was difficult to remove."

In evidence of his confounding two essentially different diseases, he says in his article on Pseudo-membranous Laryngitis: "The principal seat of the pseudo-membrane is that mucous membrane which is covered with pavement epithelium; thus it is that the tonsils are the first usually to exhibit symptoms of diphtheria." Again, "In uncomplicated cases of membranous laryngitis the membrane is confined to the larynx. Dozens of years ago, viz., before 1858, when diphtheria began to settle amongst us, that took place in most cases. But since that period we meet with few such simple cases; as a rule the membrane makes its appearance in the pharynx first, from there to descend into the larynx. In other cases the membrane is formed in the bronchi and trachea first, and invades the larynx from below." He uses diphtheritic and pseudo-membranous as convertible terms.

In his etiology of pseudo-membranous laryngitis, after mentioning the fact that intense irritants, mechanical, chemical, and thermal, will produce a croupous laryngitis, he says, "Heubner produced diphtheria of the bladder by cutting off temporarily the supply of circulation." After enumerating various chemical agents that produce croupous deposits, he very properly says, "These

however are not the usual causes of croup. Cold and moist air is a more common cause," but introduces a confusing element, when he adds, "mainly during a prevailing epidemic of diphtheria." "In former times," he proceeds, "which are unknown to the younger generation of physicians, when no such epidemic existed, the only form of diphtheria occurring now and then was the local laryngeal diphtheria, called pseudo-membranous croup." As might have been expected from his confounding the two diseases, he says, "It is contagious. In the same family, from a case of croup, either another case of laryngeal croup may originate, or another form of diphtheria will develop in other members of the household. It is not so contagious, it is true, as general diphtheria must be, for the infecting surface is but small in uncomplicated membranous croup, and the membrane not so apt to macerate and be communicated."

As might have been expected also, he and Prof. Steiner in their symptomatology of croup include all the well-known phenomena and sequelæ of diphtheria. Why Prof. Jacobi should have taken the trouble to write a separate article on each of these two diseases—pseudo-membranous laryngitis and diphtheria—can not well be conceived, unless it was out of compliment merely to those who believe in their non-identity. As in his treatise on diphtheria, after paying high tribute to Dr. Samuel Bard, an American, who, in 1771, strongly advocated the identity of angina maligna (diphtheria) and membranous laryngitis, he says, "While his style is classical in its simplicity, his observation is astonishingly correct, and his conclusion as to the actual identity of all diphtheritic process in the most various clinical symptoms unimpeachable this very day."

There is reason to believe that much of this uncertainty and confusion arises from the fact that in diphtheritic croup there is, not infrequently, as a result of the inflammatory action set up by the diphtheritic poison a veritable fibrinous exudation upon

the surface of the laryngeal mucous membrane, thus establishing a complication of the two diseases.

Prof. Steiner has evidently been misled by this very fact. After stating that "in the majority of cases of croupous laryngitis the throat (fauces, etc.) is involved in the exudation, and from the starting point of the inflammation croup decends; occasionally, however, the deposit is entirely absent from the fauces." He says, "The exudation seems sometimes in the form of true croup and sometimes in a diphtheritic form," and adds, "but the wretched confusion and uncertainty which still prevail among physicians in regard to the theory and nomenclature of these two processes, would make it impossible to collect statistics showing their relative frequency. Moreover, it must be frankly confessed that it is not always easy during life to make a clear diagnosis."

Over sixty years ago Bretenneau first accurately described and named diphtheria, and at the same time announced his belief in the identity of this disease and croup. At first he believed diphtheria to be purely a local disease, and that contagion occurred only when the diphtheritic secretion in the form of fluid or dust-like atoms came in immediate contact with the soft mucous membrane, or with the skin deprived of its epithelium, and that inoculation was the only possible mode of conveying the disease. Later he was obliged to admit that blood-poisoning was one of its essential characteristics.

Although believing in the identity of diphtheria and croup, Bretenneau unwittingly marked the point of departure of these two diseases the one from the other, and at the same time suggested to the mycologist the field of observation wherein to demonstrate the specific cause of diphtheria, when he said, "No inflammation with exudation is diphtheritic when it does not spread by contagion, and, indeed, the membranous exudation is the poison itself which forms the pathological criterion of this disease." Many

other French, English, German, and American writers, among whom may be mentioned Rilliet, Barthez, Eustace, Smith, Bamberger, J. F. Meigs, etc., have with Steiner and Jacobi shared the views promulgated by the eminent Frenchman, differing from this writer chiefly in attaching greater importance to the general affection. Thus it will be seen that Bretenneau has at this late day a most respectable following.

A quarter of a century ago Virchow, as the result of his painstaking investigations, announced the fact that diphtheritic inflammation was characterized by an exudation *into the substance* of the mucous membrane, while in croup the exudation *lies upon the surface* of the mucous membrane. I believe this has received the indorsement of almost every pathologist of any note who has since that time investigated the subject.

In 1868 Oertel and Hueter simultaneously announced that the diphtheritic membrane, the subjacent diseased parts, and even the blood contained in great numbers vegetable organisms or bacteria, to which the former gave the name micrococci. Experiments were instituted; inoculation practiced in various situations; the prolific growth of the micro-organisms noted uniformly, and in 1869 and 1870 Frendlenburg and Nassiloff agreed with Oertel and Hueter in declaring these organisms to be the "essential elements of diphtheritic contagion." These claims have been strengthened by the investigations of Waldeyer, Recklinghausen, Heiberg, Klebs, Eberth, and many others. Later investigations by Klebs and Loeffler have resulted in the discovery of the "dumb-bell bacillus of diphtheria," which, in their opinion, produces the deep and extensive layers of false membrane in the fauces, pharynx, and trachea. This glutenous mass thus formed serving as a quick-sand to catch and entangle the myriads of micro-organisms, ingested and inhaled in such inextricable confusion as to have made it heretofore impossible to pick out the specific cause of the disease. Beneath this superfi-

cial layer, they found a special layer containing colonies of this particular bacillus.

For the purposes of this paper it matters little which particular organism constitutes the specific cause of diphtheria. Certain it is that, notwithstanding the skepticism of many, the most expert and justly distinguished mycologists and pathologists of this day are united on the one proposition that diphtheria is due to a micro-organism, and that it is both infectious and contagious.

In this lies the explanation of the marked constitutional disturbances, the pathological changes in the blood, kidneys, nerve centers, and other tissues, producing the well-known sequelæ of the disease. Thus declaring the world-wide difference in etiology between this and true croup; a non-specific, therefore non-contagious local inflammation, characterized by a fibrinous exudation upon the surface of the laryngeal and tracheal mucous membranes, which can not pass the bounds of a local affection, therefore, can no more produce the sequelæ so common to diphtheria than can a croupous laryngitis produced by ammonia, chlorine or any other purely chemical, thermal, or mechanical agent.

More than a century ago careful distinction was drawn between angina maligna and true croup by Richard Russell, of London, and Francis Home, of Edinburgh. In 1779, in his treatise on malignant angina, Dr. J. Johnstone, of Kidderminster, strongly insisted on the non-identity of the two affections, pointed out the asthenic and more dangerous character of the one, and the sthenic and less dangerous character of the other; that they were not merely two stages of the same disease, but that the former applied to that complication of the epidemic, which has been observed in all its records from the earliest times; that it was occasioned by the same epidemic cause and required the same sustaining plan of treatment.

Since the time of Home, Russell, and

Johnstone, there may be mentioned among those who have promulgated and defended the doctrine of non-identity, Bland, 1827; Abercrombie, Broussais, 1829; Chéyney, 1833; Durand, 1843; Dr. Benjamin Rush, of Philadelphia, Charles Wilson, of Edinburgh, 1855. Still later in this country, Austin Flint, G. B. Wood, J. Lewis Smith, Fordyce Barker, and others. Among the Germans such men as Niemeyer, Letzerich, Opolzer, etc.; also among English writers, William Squire, of London, author of both the articles on croup and diphtheria in Reynolds's System of Medicine. This writer is terse, clear, and emphatic in the distinction he draws in symptomatology, pathology, and diagnosis between these two diseases, steering clear of the confusion which characterizes the writings of Steiner and Jacobi on the same subjects.

In studying the authorities on this question two facts are apparent, that is the great unanimity of opinion as to the specific character, general phenomena, sequelæ, etc., of diphtheria, and that a large number of eminent observers wholly ignore the existence of a non-specific, non-contagious, idiopathic membranous croup.

The difficulty in differentiating between diphtheritic croup and true croup is painfully apparent. But there are some points of manifest difference in the symptomatology which in the main ought to enable us to distinguish the one from the other.

Bearing in mind the facts that croup is a non-specific, localized inflammation, sthenic in character, whose causation is always connected with cold, wet, etc., and that diphtheritic croup is secondary to a specific, contagious, general, or constitutional disease, asthenic in character and usually epidemic, the following considerations would naturally influence the diagnosis in a case presenting symptoms of croup, viz: The prevalence of an epidemic; a history of exposure; unsanitary surroundings; croupous symptoms succeeding a prodromal stage of two or more days' duration, with dullness,

stupidity, refusal of food, or a night of restlessness without hoarseness or cough.

These features would, of course, point strongly to its diphtheritic origin, while their absence in a case known to have followed closely upon an exposure to cold, etc., would point with equal significance to true croup.

I need scarcely call attention to the various other manifestations of general disturbance, incident to the diphtheritic affection, such as headaches, sometimes convulsions, anorexia, vomiting, free action of the bowels, also coryza, free secretion from the nose, moist, creamy tongue, and difficult or painful deglutition.

Without consuming time with an analysis of the subjective symptoms common to both, I think the following comparison will serve to show the distinguishing features of the two diseases:

IN DIPHTHERITIC CROUP.

A prodromal stage of two or more days without hoarseness or cough; more or less profound constitutional disturbance; elevated temperature, which often subsides after the first onset of the disease, sometimes becoming subnormal, to rise again with the invasion of the larynx and trachea.

Mottled or irregularly reddened fauces, often more conspicuous on one side than the other.

Enlarged and painful lymphatic glands, particularly the submaxillary at the angle of the jaws.

Exudation on the tonsils in the fauces, sometimes in the nares, on the lips, etc.

Early appearance of albumen in the urine as a rule.

A fetid breath of a sweetish, musty odor, similar to that in scarlatina.

IN TRUE CROUP.

A sudden onset, or following within a few hours on exposure to cold and wet; little or no constitutional disturbance; elevated temperature, continuing till amendment is established.

Uniformly pale-red or bright-red—never mottled—appearance of the fauces, which are conspicuously free from loose secretion.

There is never enlargement of the submaxillary lymphatics.

There is no exudation on the tonsils in the nares or fauces, except, possibly, in rare instances the intense inflammatory action having extended by sympathy of continuity to the territory immediately contiguous to the entrance to the glottis; by strongly depressing the tongue the upper border of the membrane may be seen.

Albumen is never found in the urine.

The peculiarly fetid breath is never present.

Bearing in mind then the asthenic character of the one and sthenic character of the other. I would emphasize these distinguishing features, viz: marked constitutional disturbance; fetid breath; enlarged lymphatics at the angle of the jaw; exudation on the tonsils, in the fauces, or nasal cavities, lips, etc., mottled, or irregularly colored fauces; and albumen in the urine in diphtheritic croup, and their absence in true croup.

In addition to the question of infection and contagion, I may remark in conclusion, that the importance of differentiating between these two forms of croup concerns not only the therapeutic management, but the surgical treatment and prognosis as well. The chances for success being far greater in true croup.

THE widely different opinions of eminent surgeons on the question of Listerism may be explained on the ground that some are inclined to prevent any chance for septic matters to lurk about the hospital; and the other class are supposed to rely upon the antiseptics employed; just as some people have a profound contempt for all kinds of filth, thinking only of the disinfectants, while the more successful practitioners take great care to prevent any occurrence that might possibly call for the use of disinfectants.

VALVULAR LESIONS OF THE HEART.

BY FRANK C. WILSON,
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ville.*

[A Clinical Lecture delivered
at the Louisville City
Hospital. Reported for
PROGRESS.]

GENTLEMEN. — Being able to bring before you to-day several interesting cases of valvular disease of the heart; let us first review the rules to be applied in differentiating the different lesions. There are four orifices connecting the auricles and ventri-

cles, and leading from the ventricles into the large arteries, each orifice being guarded by its appropriate valve. These valves are so arranged as to allow the blood to flow in one direction from the auricles into the ventricles and from the ventricles into the arteries, but in their normal and healthy condition by closure prevent perfectly regurgitation. The endocardium, the thin serous membrane lining the heart, identical with the inner coat of the arteries, being continued through the orifices and reflected over the surfaces of the valves, sometimes becomes the seat of active inflammation. This may be either primary, or it may follow in the course of an attack of acute inflammatory rheumatism. As a result of the inflammation, lymph is poured out upon and infiltrated into the endocardium. Lymph naturally contracts, and the thin membranous-valve curtains may thus be so warped and twisted as to fail to properly fit together in closing, regurgitation being the natural result; or the lymph may be deposited in masses about the edges of the orifice so as to produce more or less obstruction.

Thus we see that there may be caused at each of the four orifices either obstruction or regurgitation, each change being productive of an abnormal sound or murmur, which either accompanies or takes the place of the natural sound. In the examination of a case, it devolves upon us, therefore, to ascertain first, whether there is in connection with the heart's action an abnormal sound or murmur, and, if so, secondly, at which

one of the orifices it is produced, whether by obstruction or by regurgitation.

As there are four orifices, each guarded by its valve, and each may be the seat of either obstruction, or regurgitation, or both, it necessarily follows that there is a possibility of eight different murmurs, and it devolves upon us to differentiate them.

If you place the ear over the cardiac area in a healthy chest, you will hear two distinct heart sounds, denominated first and second. The first sound louder, longer and duller in character, occurs at the time the ventricles are contracting, when the mitral and tricuspid valves are closing, and the blood is rushing through the aortic and pulmonary orifices, the semi-lunar valves being open. If, then, either the mitral or tricuspid valves have been warped so as to allow regurgitation, or there has been a deposit of fibrin about either aortic or pulmonary orifice, a murmur might thus be produced at either one or at all four of the orifices, and occurring at identically the same time with reference to the action of the heart. If we hear an abnormal sound, and by placing the finger upon the radial artery ascertain that it occurs with the contraction of the heart, then how can we tell at which one of the four orifices it may be produced, and by what condition?

Although the four valves are so close together anatomically, yet the sounds, originating at each, diverge in being transmitted to the surface of the chest so as to be widely separated. The sounds produced at the mitral valve, conducted by the chordæ tendinæ, are heard near the apex of the heart, the sounds from the tricuspid orifice more to the right near the ensiform cartilage, those from the aortic orifice at the right edge of the sternum, while those made at the pulmonary valve are heard most distinctly at the left edge of the sternum. Having previously decided that the murmur occurs with the first sound we can then definitely locate it by ascertaining at which one of the four points it is heard with greatest inten-

sity. We can then confirm our diagnosis by ascertaining in which direction the sound can be followed. Sounds are naturally carried along with the current. A murmur produced by obstruction at the aortic orifice will naturally be carried by the current into the arch of the aorta and into the carotids. So a sound produced at the pulmonary valve will be carried along the course of the pulmonary artery. A murmur caused by regurgitation through the mitral valve will be carried by the current into the auricle, and impinging against the posterior wall of the auricle, will be distinctly heard through the back when the ear is placed alongside the vertebral column near the angle of the scapula.

Suppose on the other hand instead of hearing the murmur with the first sound of the heart you hear it with the second, then it can only be produced by a failure to close properly of either the aortic or the pulmonary valves. If the murmur is heard with the second sound and is heard most distinctly at the right edge of the sternum, then it can only be produced by incompetency of the aortic semi-lunar valves. If, however, being heard with the second sound it is heard most intensely at the left edge of the sternum, then it must be produced at the pulmonary orifice by regurgitation.

We have now disposed of six of the eight possible murmurs, there remaining only two to be considered, viz., those caused by obstruction at the mitral and tricuspid orifices. Such a murmur must occur just at the time when the auricle suddenly, by its contraction, empties its contents down into the ventricle just prior to the ventricular contraction. Only at that time has the current sufficient force and velocity to produce a sound. This murmur is heard, therefore, just prior to the first sound, running up to and stopping suddenly when the first sound begins. If it is heard most distinctly to the left near the apex it is a mitral obstructive, if to the right near the enciform cartilage, then it must be a tricuspid obstructive.

You see, therefore, if we follow these three rules, viz :

1. Ascertain with which sound the murmur is heard;
 2. Where it can be heard most distinctly;
 3. In which direction it can be traced,
- we have all the data needed to make a correct diagnosis in any given case. Now let us apply these rules to the examination of the cases before us.

CASE I. T. D., aged twenty-two, colored, was admitted to the hospital about six weeks ago. He stated that, for several weeks before, he had suffered with severe pains in his knees, ankles and elbows, the joints being swollen, hot and painful. He had high fever which had been ushered in with a well marked chill. Urine was high-colored and acid; perspiration, profuse and sour. There was great dyspnea, some cough, with expectoration of large quantities of a viscid mucous. There was great anxiety depicted in his countenance. Listening to the heart there could be heard a loud and well marked pericardial friction murmur. There could also be heard a distinct murmur with the first sound of the heart very distinct near the apex, and it could be traced toward the left axilla, and could also be clearly heard near the angle of the left scapula. So there could be no doubt as to the existence of a mitral regurgitant murmur. But there could also be heard very distinctly at the right edge of the sternum, near the base of the heart, a double murmur, the first portion being heard at the same time as the former one, but distinctly traceable into the arch of the aorta, and even into the carotids, being, therefore, clearly an aortic obstructive.

The second portion occurs at the time of the second sound, and takes the place of it, and being heard most distinctly at the right edge of the sternum must be an aortic regurgitant murmur; the two together forming what is known as a double or bellows murmur. We have had, therefore, developed in this one case, besides the pericar-

dial friction murmur, three distinct endocardial murmurs, viz., a mitral regurgitant, an aortic obstructive, and an aortic regurgitant.

The other case is of longer standing, having suffered from repeated attacks of articular rheumatism, having been treated in the hospital two years ago for general dropsy resulting from valvular disease. Upon examination we find an exact counterpart of the first case, with the exception of the pericardial sound, there being regurgitation at the mitral valve and at the aortic valve, with obstruction at the aortic orifice. (Opportunity was then afforded to members of the class to verify the diagnosis in each case by listening to the heart sounds.)

The lecture hour having expired, consideration of the effects of valvular disease and the treatment was reserved for the next clinic.

MULTIPLE SYNOVITIS IN TYPHOID FEVER.

BY J. STEELE BAILEY,
M. D.

STANFORD.

*Permanent Secretary Ken-
tucky State Medical
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In the fall of 1885 (a very dry season) I attended the family of Patrick Napier, including himself, wife, two daughters, and two sons, the youngest eighteen years old,

for typhoid fever. Living remotely from town in a usually healthy, sandy district, with no near neighbors, the disease was confined to the premises of Mr. Napier. Why the localized epidemic should have arisen remains a vexed problem. Suspicion early in the outbreak fell upon the spring, the mouth of which was much below the level of the surrounding ground, and consequently easily admitted of the flow of refuse matter thrown out of the house; but, as the spring was continually running many gallons per minute, it is highly improbable that it was contaminated. Nevertheless it was tabooed. I attributed the outbreak to the unsanitary environments. *En passant* I will remark that I have been interrogated many a time as to the danger of infection of typhoid fever, and

I find it is not always easy to explain the peculiar circumstances of the case so as to satisfy the minds of timid people. It is very desirable, if possible, that the question should be settled.

Out of the six patients but one died—Patrick, the father, aged sixty-seven years. Had not careful thermometric observations been made, together with the most unremitting nursing by friends, the mortality would have been greater. In four of the patients—Mrs. Napier, the two daughters, and youngest son—the disease ran a typical, but comparatively mild course. In the boy above mentioned, who is a cripple of two years standing, with an anchylosed knee from rheumatic synovitis, a considerable intestinal hemorrhage occurred on the twentieth day, but soon afterward the tongue became moist and clean, the motions were perfectly formed, the appetite returned; but liquid food only was allowed as long as the evening temperature rose as high as 101° Fahrenheit. In these cases the antipyretic value of quinine was pre-eminent. It is no doubt princeps facile of all drugs in the treatment of typhoid fever.

The main object of the present paper is to call attention to the case of Ben, twenty years of age, in which there was a unique and rare complication in the seventh week of *multiple joint pains*, which have been likened to rheumatism, but until there is a clearer insight into their nature we can not accept their similarity. From the beginning to its termination the case was of extreme severity. His sickness began fourth in order. He was frightened and battled manfully to keep on his feet. He prescribed for himself large doses of whisky, quinine, calomel purges, and C. O. salts, but to no avail.

During the first week he had a bronchial catarrh, with a pleuritic stitch of such severity as to require morphia hypodermically. There was nose-bleed every day. Delirium came on early. The temperature exhibited regular morning and evening variations, each evening being about two or three degrees higher than that of the morning. The sec-

ond and third week the temperature was at its maximum, and during the middle of the latter period stupor was most marked. While the remissions were somewhat more manifest there was exhibited a most unusual and (to me) unequal disproportion between the pulse and the temperature. The pulse became abnormally slow from having been very fast, running down as low as 40, and it did not rise above 60, for seven or eight days, when again it assumed a rather quicker action, but not to be compared with that in the first days of his illness. The thermometer in the axilla during this slowness indicated, morning, 102° Fahrenheit; evening, 103° or 104° Fahrenheit. This abnormality was alarming, but considering it due to an organic change in the muscular structure of the heart from the continued fever poison, I increased the dose of infusion of digitalis, gave alcohol unsparingly, and added to the R tinc. nucis vomicæ. These remedies while not increasing the rate, added materially to the tone and volume of the pulse. A miserable bed sore over the sacrum now began to give annoyance. The slough which came from it was as large as a saucer. The fourth week found the mind out of time, incoherence, and subsultus very marked, with loss of hearing on the right side, due to suppuration of the middle ear. He was hanging in the balance. In the sixth week he began to improve; all signs were hopeful. Subsidence of diarrhoea and tympanites; tongue became moist and intelligence fully returned; the temperature had almost returned to the normal; some desire for food; he was taking cognizance of people and things. On the forty-seventh day I was hurriedly called to see him in the early morning; was told he had had a hard chill during the night; the temperature was 104° Fahrenheit, though he had sweat very profusely. The stomach was much disturbed; the pulse so feeble and the prostration so great as to create fears of his being quickly taken off. He was suffering agonizing pains, the legs were drawn up, the knees bent at an acute angle, and I suppose

that either peritonitis or perforation had taken place. The fever was intense; breathing quickened; there was jactitation. I remained all day and at night. By next morning he was apparently better. When the time for the toilet of the bed-sore came it was seen that he couldn't be moved, his knees were quasi-anchylosed. A more critical examination showed that both knees, both ankles, and both tarso-metatarsal articulations were inflamed and intolerant of the least pressure. He had pain in his left breast, a teasing cough, the sputa streaked with a little blood; his breath was offensive and the tongue highly coated. Later in the day the left hip became very sore, and by nightfall both elbows and wrists were involved. The swelling was marked by considerable cutaneous redness and puffiness, the œdema beneath the surface making it look as though an abscess was lurking. This was a novel complication—a clinical feature I had not seen mentioned in any monograph or text-book on typhoid fever.

The position of the patient was characteristic of acute articular inflammation. He winced and whimpered at a slight touch, but there was marked pain on deep and continued pressure. After reflection, in vain searching through the books, I diagnosed the complication as a *multiple synovitis*, involving simply the synovial and peri-articular tissues; that it was pyemic in its nature; that the intestinal ulcerations gave rise to absorption into the blood of the materies morbi, and that, while it bore a strong resemblance to, in reality it was not rheumatism. The inflammation speedily subsided, but the articulations for many weeks were quite tender. The treatment was essentially constructive—generous wines, pure mountain brandy, freshly drawn milk, substantial soups, the enforcement of absolute rest, and last, but not least, quinine.

The “malignant influence,” about which Stokes, of Dublin, has talked so much, played in this instance almost too preponderating a rate for art to overcome; but the subject

is, to-day, an example of a patient cured by “preventing him from dying.”

The literature upon this subject is meagre. While synovitis during typhoid fever is a sufficiently rare affection, it is true that two forms of it occur in connection with the disease, the uni—and multi—articular. The mon-articular disease is local, and is regarded by Barwell as a specific part of this fever, and many cases from various sources are reported.

The multi-articular is a rarer event, though several well authenticated cases are mentioned in current medical literature; it is constitutional, occasions more suffering, and its termination is not always a happy one.

A STRIKING illustration of the value of the bichloride of mercury in the treatment of tuberculosis may be found in case of S. T. M., aged thirty-eight years, who came, October 23, 1885, in a very feeble and emaciated condition, suffering from severe dispnoea, hoarseness, frequent chills followed by high fever, and colliquative sweats. Examination showed extensive infiltration of the epiglottis and the walls of the larynx. The vocal cords were concealed behind the swollen tissues above. The cough and expectoration seldom ceased more than five minutes at a time during the entire day.

The sputum was so rich in tubercle bacilli that mounted preparations of it were used as samples for illustration in teaching. This man got a spray of the bichloride of mercury, prepared as follows:

R Hydr. bi-chloridi gr. ij;
Aquæ destillatæ O. i;
Sodii chloridi ʒi.
M. Ft. solutio.

He was ordered pills of the bichloride gr. $\frac{1}{40}$ each, one before each meal and at night, and a pill composed of asafoetida gr. iij, and ext. of nux vomica gr. $\frac{1}{4}$, to be taken at the same time. In six weeks he was walking the fields five or six miles daily, hunting game. He was married last January, and is now out West.

GENERAL SURGERY.

FOREIGN BODY
IN THE LEFT
BRONCHUS.

BY L. S. MCMURTRY,
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OF DANVILLE, KY.
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On Monday, January 25, 1886, Dr. W. A. Brown, of Parksville, Ky., called at my office with Willie Bolling, seven years of age. Four weeks previously, while running with half a hickory-nut shell in his mouth, this boy involuntarily drew the shell into his windpipe. He returned immediately to the house and told his mother that he had swallowed the hickory-nut shell, “that it went down the wrong way, and hurt his throat in its passage.”

There was very slight disturbance of respiration at the time, and when Dr. Brown was summoned a few hours afterward, so free and undisturbed was his breathing that the doctor doubted that the shell had been inhaled. In a few days, however, the patient developed a croupy cough; the respiration became rapid, and symptoms of bronchial irritation were manifest. The symptoms were so mild in character, and the lad so comfortable, that steps toward removal of the intruder were deferred, hoping for its spontaneous expulsion. The progressive development of bronchitis, however, with serious local and general symptoms, gave admonition of the urgency of the condition. On examination I found the pulse 112, temperature 101°, respiration 32. Inspection of the uncovered chest was sufficient to demonstrate that the left lung was inactive, and that the right lung was doing double duty by way of compensation. With the ear applied to the chest only feeble respiratory sounds could be detected over the entire surface of the left lung. Over the site of the left bronchus a distinct whistling respiratory sound (sonorous rale) was conspicuous, and moist bronchial rales were distributed over the surrounding pulmonary area of the left side. When the patient coughed

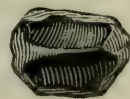
the signs of obstruction of the left bronchus were so positive as to admit no doubt of the presence and location of the foreign body. And since four weeks had elapsed since the inhalation of the hickory-nut shell, the physical signs of localized bronchitis, with obstruction of the left bronchus, justified the belief that the irregular and sharp edges of the foreign body were firmly imbedded by ulceration in the bronchial mucous membrane. I at once advised the operation of tracheotomy for the removal of the intruder, which was promptly approved by Dr. Brown.

On the following Monday, February 1, five weeks having elapsed since inhaling the nut-shell, the patient having been anesthetized by Dr. Brown, I did tracheotomy, making a free opening in the windpipe. A violent paroxysm of coughing occurred at once with the discharge of a quantity of mucus. The body was raised from the table and the head lowered in order to facilitate dislodgment and expulsion of the foreign substance. This failing, a long, curved forceps was passed into the trachea, hoping thereby to find and extract the nut-shell. The irritation caused by this procedure compelled the withdrawal of the instrument. The effort to find and extract the foreign body was several times repeated with like results. A strong silk thread was then passed through each edge of the divided trachea and secured over a compress at the back of the neck. This mode of keeping the wound open was advocated by the late Dr. Henry A. Martin, of Boston, and was pursued by the late Prof. S. D. Grass in his operations for foreign bodies. It proved quite efficient in this case. I tried to utilize the blunt hooks usually recommended for this purpose, but could not secure their retention.

The patient was then placed in bed, and the usual precautions for the care of a patient after tracheotomy were arranged and observed. I again visited the patient on the fourth day after the operation, and found that no change had occurred in the physical signs indicating obstruction of the left

bronchus and localized bronchitis. Assisted by Dr. Brown and Dr. Fayette Dunlap, the patient was again anesthetized, and the tracheal wound, which was granulating and almost closed, was reopened and another futile search made with the forceps for the foreign body. Holding the tracheal wound well open, the patient's body was inverted, and vigorous, and prolonged succussion and percussion applied. I struck the posterior surface of the chest, between the scapulæ, repeatedly and with force. Although the nut-shell was not ejected by this procedure, there was a copious discharge through the tracheal wound of dark-colored and yellow muco-purulent matter—*conditions which at no previous time had characterized the expectoration.*

The patient was placed in bed and treated as before. From this time until the expulsion of the foreign body, which occurred on the third day thereafter, the respiration was more free, the physical signs demonstrated that air was admitted to the hitherto inactive left lung, and there was a free expectoration of yellow and dark-colored muco-pus. In a paroxysm of coughing on the third day after the second operation, the intruder was expelled with a quantity of muco-purulent material. The shell was of an irregularly square figure with sharp angles, as may be seen in the cut, which is made from a pho-



tograph. The change in the physical signs as well as in the character of the discharge, leaves no doubt that in our efforts to jar the shell from its nidus, under the relaxation of chloroform, air was admitted beyond the obstruction in such quantity as to eject the accumulated mucus and pus, and finally the foreign body. It must be remembered in this connection that inversion and percussion would have been inadmissible in such a case without previously doing tracheotomy, on account of the sensitive and contractile nature of the glottis, which, unless surprised,

will arrest the foreign body and result in suffocation. After the ejection of the foreign body the wound was drawn together with strips of adhesive plaster, and the patient made an unimpeded and perfect recovery.

In a somewhat extended research into the literature of foreign bodies in the air passages, I am unable to find more than a single instance in which a hickory-nut shell has been lodged in the windpipe. This case was reported to Prof. S. D. Gross by the late Dr. John L. Atlee, of Lancaster, Pa., and is recorded in Prof. Gross' classic treatises on foreign bodies in the air passages.* In this case the shell was lodged at the bifurcation of the trachea. Dr. Atlee performed tracheotomy a few hours after the accident, and made repeated unsuccessful attempts at extraction. Seven months afterward he repeated the operation and again failed to dislodge and remove the foreign body. The patient died on the following day, and Dr. Atlee thus describes the condition found at the autopsy: "The right lung was very hard and firm, and closely attached at its superior and middle lobes to the costal pleura by bands of false membrane. The mucous coat of the trachea was highly inflamed, and the hickory-nut shell was found lying loosely at the bifurcation of the trachea, its situation being indicated by a ring about one inch broad and of a deep red color. Numerous red spots existed all around. The shell was of an irregularly square figure, with sharp angles, and about half an inch in length by about three eighths of an inch in width. The left lung and pleura were perfectly sound." The patient was a girl nine years of age.

The introduction of foreign bodies into the air passages is an accident of such frequency, and of such urgency and danger, that the proper treatment of such accidents becomes a question of great practical importance. Upon this point Mr. Erichsen says: "If a patient be seen a few hours, days, or weeks after a foreign body has been intro-

duced into the air passage, or, indeed, at any period after the accident and inversion have failed, tracheotomy ought to be performed, and this should be done though the symptoms be not urgent. There is often a remission in the symptoms, a lull, a period of deceptive security, by which the surgeon must not be put off his guard, but proceed without delay to tracheotomy.

The opening in the trachea performs a double purpose; it not only serves as a ready and passive outlet for the expulsion of the foreign body, but also as a second breathing aperture in the event of its escaping the glottis."†

Mr. A. E. Durham says, "When a foreign body is known to be retained in some part or other of the air-passages, the promptest treatment is demanded. The surgeon should not trust to the unaided efforts of nature to expel the extraneous substance. As a general rule, the windpipe should be opened with as little delay as possible in every case in which a foreign body is certainly known to be retained in any part of the air passages."‡

Mr. T. Holmes says, "When the diagnosis of a foreign body has been made, the surgeon should allow no delay in removing it at once."||

Says Mr. Bryant, "Given the diagnosis of a foreign body in the windpipe, the duty of the surgeon plainly is to endeavor to remove it. There should be no deviation from this rule. The surgeon should never allow himself to be misled by the mildness of the symptoms, nor by the knowledge that in rare instances foreign bodies have remained in the passage for years, and even then expelled, as such cases are exceptional. The accident is one that will inevitably destroy life, although it must be doubtful at what time or in what form danger may appear."§

The classical work of Prof. Gross on Foreign Bodies in the Air-Passages is the most

*A Practical Treatise on Foreign Bodies in the Air-Passages, by S. D. Gross, M. D., Philadelphia, 1854, p. 409.

†Science and Art of Surgery (Amer. ed., 1869), p. 388.

‡Holmes' System of Surgery (Amer. ed.), vol. 1, p. 710.

||Treatise on Surgery, p. 211.

§Practice of Surgery, p. 562.

exhaustive and complete study of the subject extant, and embraces the collected experience of a large number of cases from many sources. In the last chapter of that work, under the head of "General Summary," may be found this statement: "Inasmuch as no confidence is to be placed in the use of errhines, emetics, and other means, inversion and succussion of the body, and not even in nature's own efforts, and inasmuch, moreover, as no patient can be considered as being safe so long as the extraneous substance remains in the air-passages, it follows as a necessary corollary that bronchotomy affords the best chance of relief, and should always be resorted to as early as possible, unless there is some special contraindication."

In the last edition of his *System of Surgery*, with the accumulated experience of surgeons and his own ripe knowledge to guide him, Prof. Gross writes: "Having satisfied himself that the foreign body is in the air-passages, the sooner the surgeon opens the windpipe the better. For the want of this precaution I have known a number of children to be lost in the vain hope that extrusion might occur spontaneously. A violent cough coming on, the patient may drop down in a fit of unconsciousness from spasm of the glottis and be instantly choked to death. Now, although the operation may not be immediately followed by the escape of the foreign body, it will at least effectually present spasm of the glottis, and thus afford the extraneous substance an opportunity of being extruded either by the natural or artificial route."

With enviable industry, and great care and precision, Dr. J. R. Weist, of Richmond, Indiana, collected and presented in tabular form to the American Surgical Association in 1882, one thousand cases of foreign bodies in the air-passages. The cases were collected from original sources, and 897 of the number had never before been reported. From a study of these tables, Dr. Weist makes the following deductions:

1. When a foreign body is lodged either

in the larynx, trachea, or bronchia, the use of emetics, errhines, or similar means, should not be employed, as they increase the sufferings of the patient and do not increase his chances of recovery.

2. Inversion of the body and succussion are dangerous, and should not be practiced unless the windpipe has been previously opened.

3. The presence simply of a foreign body in the larynx, trachea, or bronchia does not make bronchotomy necessary.

4. While a foreign body causes no dangerous symptoms, bronchotomy should not be performed.

5. While a foreign body remains fixed in the trachea or bronchia, as a general rule bronchotomy should not be practiced.

6. When symptoms of suffocation are present or occur at frequent intervals, bronchotomy should be resorted to without delay.

7. When the foreign body is lodged in the larynx, there being no paroxysms of strangulation, but an increasing difficulty of respiration from edema or inflammation, bronchotomy is demanded.

8. When the foreign body is movable in the trachea, and excites frequent attacks of strangulation, bronchotomy should be performed.

Commenting upon these deductions made by Dr. Weist, Prof. Gross says: "I certainly can not agree with Dr. Weist, that a foreign body in the air-passages is a harmless tenant, even when it does not provoke any dyspnea or special symptoms. Such a body may, it is true, be spontaneously ejected, but the annals of surgery abundantly show that its presence not unfrequently occasions instantaneous suffocation, or if it be retained even for a short time, severe, if not fatal, pneumonia.*"

In placing the case herein reported within easy reach of the statistician, I feel that I am adding another line to the practical precept, that when it is positively known that a foreign body has entered the windpipe, that tube

**System of Surgery*, Ed. 1882, vol. 1, p. 333.

should at once be opened in order that the intruder may be expelled or extracted, and at the same time eliminate thereby the danger of suffocation from lodgment in the glottis.

GUNSHOT WOUND OF THE CHEST.

BY
PROF. R. A. KINLOCH,
M. D.

[A clinical lecture delivered
at City Hospital, Charles-
ton, S. C. Reported by
a member of the class
expressly for PRO-
GRESS.]

The man I bring before you this morning is the patient whom you saw in the ward a fortnight ago with a serious gunshot wound of the chest, on the left side, and close to the cardiac

region. The result of treatment is interesting, and I notice it because for some years I have urged upon all my students the advantages of a so-called expectant plan of treating this class of injuries. As you know, or now see, the wound in this case was in front of the chest, and the ball lodged and was discovered under the integument on the posterior part of the left thoracic region, just to the inner border of the scapula. The injury was the result of a suicidal attempt, and the heart was the organ aimed at. The projectile was small, a 32-calibre pistol shot, and fired at close range. I am not going to give you, or the patient, an anatomical lecture in calling attention to the course of the projectile and the direction of the wound; but if you will look at the point of entrance, and here also at the point where the ball is, as I believe, lodged, you will perceive how narrowly the heart and the great vessels must have escaped injury. The escape is miraculous, and the prompt recovery of the patient is also astonishing.

Recollect that the patient was brought to the hospital soon after the infliction of the injury, and in accordance with my general instructions to the house staff *there was no probing of the wound*. I insist upon this point as a very important one. To probe such a wound is to poison it most likely, and besides to incur the risk of hemorrhage and subsequent inflammatory processes almost certainly fatal to life.

The wound was thoroughly cleansed with carbolized water, and then occluded with iodoform and absorbent cotton—the cotton held in position by long and wide strips of adhesive plaster. This dressing was not disturbed for a week. The line of direction of the wound, and the auscultatory signs, left no doubt of the fact that the lung had been traversed. But little blood was expectorated and the cough was never annoying. Subsequently we had all the signs of localized pneumonia, small crepitant rales, labored respiration, high temperature (105° F.). The inflammatory process fortunately did not become diffusive or septic, and hence the good result obtained. The treatment consisted of absolute rest, milk diet, and the careful use of tartarized antimony in small doses, with enough opium to relieve pain and insure quietude.

Remember that although I detected the presence of the ball posteriorly, and simply under the integument, I decided not to remove it by operation. To have operated would have served no good purpose, and it would have subjected the patient to the risk of septic contamination of that portion of the tunnelled wound which our incision would necessarily have exposed to the air. Now the situation is different, for the continuity of the wound through the lung tissue has been interrupted or destroyed by the pathological and conservative processes which have been at work for a fortnight, and so I can safely now cut for the ball and remove it. But first look, as I remove the dressing, how the orifice of entrance has been cared for and how the healing process has favorably progressed. Then observe the little elevation behind upon which my finger is fixed. This is believed to be the projectile, and I am now going to substantiate my opinion.

All I have to do is to make a bold, free cut directly on this nodule; next I take the handle of the scalpel and turn out the ball, as you perceive. The operation is done. I close the wound by means of a stitch, after

dusting it out with iodoform. Then I occlude it with cotton dressing.

Care must still be taken, for although it is now sixteen days since the reception of the wound diseased processes may yet be induced. We insist upon quietude of body, and also, as much as possible, of heart and lungs, and avoiding exposure to cold. A bandage around the chest to restrict the movements of the respiratory muscles will still be a good precautionary measure.

I with confidence, gentlemen, beg you not to forget the lesson coming of this case. I have verified the principles of treatment now urged in numerous cases of this kind for several years past. Contrasted with the advice and practice of times gone by, and still held onto by some, we note great progress. The idea formerly was to probe the wound, at least with the finger, to keep it open, to drain it, to wash it daily, to bleed the patient, and to cut for the ball whenever it was located. Let it be the boast of modern surgery that we have changed all this.

LIGATION

FOR NEURALGIA.

BY SAMUEL AYRES,
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ville.*

Operative interference has now become an established method of treatment in certain severe and persistent neuralgia. The procedures commonly

recognized are four, viz: 1. Neurotomy, or simply section of the nerve-trunk, from which the painful branches procede.

2. Neurectomy, or excision of a portion of the nerve-trunk.

3. "Nerve-stretching."

4. "Ligation" of the artery which supplies blood to the painful area.

As it is proposed to treat in this short article only the last method, I shall pass the first three unnoticed, to except remark that in the last April number of the "*Annals of Surgery*" appeared an able and exhaustive research by Dr. George R. Fowler

upon all the methods of operative treatment of facial neuralgia.

In speaking of ligation however, he speaks only of ligation of the common carotid.

In this article Dr. Fowler shows, after presenting the statistics of the various methods, that ligation yields almost, if not quite as good results as any other; yet, in his conclusion, he says, "and finally, ligature of the common carotid may be tried as a last resort."

The relief afforded to neuralgia from ligation of the common carotid is about as great as from neurectomy; but the danger consequent upon the operation seriously limit its application.

Certainly ligation of the common carotid should not be tried as long as any resource remains that is less dangerous, and offers relief. Why not then, when suitable cases offer, instead of ligating the common carotid ligate the branch or branches distributed to the painful areas.

Two cases will illustrate:

CASE 1. G. W. M., male, aged 52, commander during the late war of an artillery division, had frequently suffered with severe temporal headache while in this service, from artillery firing. The pain, though not of a neuralgic character, would linger in right temple for some time after disappearing from other parts.

After the war, was engaged in civil engineering, and in 1872, upon exposure in an unusually severe spell of weather, was attacked in right temple by a pain which extended over an area of not more than a square inch. From this pain he could obtain no relief. Every form of internal medication had been fairly tested, and the skin over the right temple was enormously thickened from the prolonged use of powerful counter-irritants.

The paroxysms would attack the victim in the early morning hours, about 3 or 4 A. M., frequently causing him to start from sleep with a scream of anguish. The pain would continue with greater or less severity until

about 11 P. M., when it would subside sufficiently to allow him to sleep a few moments at a time. This peculiar rise and fall in the pain seemed to be entirely independent of any medicinal treatment.

Patient was well-informed as to the treatment he had previously undergone, and told me how, for many months, he had saturated himself with Fowler's solution of arsenic until he had literally shed his skin. How he had taken salicylic acid and its preparations until his stomach would retain them no longer; how he had consumed two ounces of quinine in two weeks; how he had blinded himself for weeks with belladonna, etc.

He was now, February 23, '86, a physical wreck. He had resisted the use of opium, partly from fear of the habit, and partly because it did not give him much relief—he had tried it a few times.

There was always a marked turgescence of the middle temporal artery during the height of the paroxysm—the area of pain was just over the course of this vessel.

February 28, after hypodermic injections of cocaine, the middle temporal was ligated near its origin.

Result—complete relief to date.

CASE 2. J. L. B., male, age thirty-seven, molder, had suffered from severe pains on right side of head for about ten years.

Lately they had increased in severity and had become more pronounced, and constant in right occipital, right temporal, and right supraorbital regions.

On questioning found he had been treated quite extensively by internal and local medicinal means; nothing seemed to afford much relief—strong counter-irritants most. While in the heat and glare of the furnace he suffered least. I concluded to give him a fair trial with some of the most reliable medicinal means, and put him on quinine, iron, arsenic, strychnine and belladonna. Applied galvanism locally. After three weeks there was no change, except for the worse, and the patient was thoroughly out of patience.

April 2, ligated external carotid just below origin of the lingual. Result—complete relief to date.

In the first case the pain was confined to such a small spot that ligation of the middle temporal, quite an insignificant operation, sufficed—up to the present at least—to give complete relief.

In the second the painful area was more extensive and could not well have been reached, except by ligation of the external carotid. Had it been confined to the supra-orbital and temporal regions I should have ligated only the temporal artery.

The occipital being inaccessible except at its emergence through the muscles at the back of the neck, it was deemed best to ligate the external carotid.

Of course the cases in which the pain is so localized as to be reached by ligature of a single small branch, are few; but even where extensive I can not conceive in what respect ligation of the common carotid could be superior to ligation of the external, inasmuch as all of the head except the interior of the cranium is supplied from the latter.

Where autopsies have been held after ligation of the common carotid, anæmia and softening of the brain, and aneurism of the innominate or aorta, have been found with sufficient frequency to be at least suggestive.

In Bryant's Surgery, edition of 1881, is an editorial note in the body of the article on ligature of the common carotid, calling attention to the results of Dr. John A. Wyeth's thorough investigations of ligature of the primitive carotid and its branches. He finds that the mortality after ligature of the common carotid is ninety-one per centum, while that after ligature of the external carotid is only four and one half per centum.

WHEN people learn that the cold boiled potato affords excellent nutriment to a large class of disease-producing germs, perhaps some care may be taken to prevent such matters from accumulating about the house.

RAPID
TRAUMATIC
GANGRENE.

BY
AP MORGAN VANCE,
M. D.

[Remarks to the Louisville
Medical Society. Re-
ported especially for
PROGRESS.]

MR. PRESIDENT:—
My excuse for introducing the subject of spreading gangrene to-night is that I may demonstrate how, in desperate conditions of this kind, immediate amputation will

save life when there seems to be no shadow of hope.

Surgical works, at least those at my command, are very meagre in their treatment of this subject. Most of them dismiss it with the statement that *immediate amputation is the only thing to do*. None give a detailed account of symptoms or cases to guide us, nor do I find the differential diagnosis between this and other forms of gangrene discussed at such length as I desired.

I have had in the past year two cases very similar in situation and origin, recovery following in both, after high amputation, despite the presence of grave complications and very unfavorable surroundings. The recital of these cases will serve to illustrate what may follow the complete removal of the dead part.

CASE I.—I was called on May 23, 1885, by Dr. H. M. Pusey, to see John Ridge, aged fifty-four years, the doctor giving me this history: Three days before, the patient, who was a powerful man, had fallen about twelve feet through an elevator hatch, striking on his head and hands. Drs. C. Rogers and H. M. Pusey were called, and found the patient had sustained a very bad compound fracture of both bones of the right forearm, was bleeding profusely at both ears, and complained of great pain in the chest and about the lower jaw. Dr. Pusey set the arm, applied the proper dressing, and conveyed the man to his home. The arm was swollen at his next visit, but the patient was quite comfortable, and appeared to be doing as well as could be expected. A little exaggeration of the symptoms, present on second day, with elevation of temperature

were observed on the morning of the third day. A short time before I was called the man's condition was very much worse; the hand was greatly swollen—dark blue in color—with large blisters about it, extending onto the forearm. This dark blue discoloration faded into red as the elbow was reached. The redness extended above the joint.

The man had an anxious countenance, was still bleeding from both ears, complaining, however, of pain in his chest only, and difficulty of breathing, with stiffness about his lower jaw whenever he attempted to chew. Notwithstanding this unfavorable outlook, I advised immediate amputation, as high as possible, without reaching the shoulder. This was done at once, by the circular method, the stump being left open, with strips over it; within twenty-four hours the temperature fell to 98.5° Fahr., and the case progressed favorably.

Twenty-four hours after the operation a dark-colored spot appeared on the anterior aspect of the stump, which progressed to the size of a silver dollar and then went on to suppuration without further extension. Patient complained continually of pain in the chest; two days after amputation pus was discovered in the heavy beard about the chin, and on examination a splintered fracture of the lower jaw was found, caused by a tooth driven down through it. After the fifth day, instead of blood, a straw-colored fluid flowed copiously in jets from the ears. Dr. J. Morrison Ray made a specular examination, when the fluid could be plainly seen coming through the drum membrane by intermittent spurts. In spite of all the complications the man went on to the twenty-third day, and was in a fair way to get well, when the gravest complication of all arose, in the form of secondary hemorrhage at night, and the patient was in a state of collapse before I was called. He gradually rallied under the use of ammonia and whisky, stimulating and nutritious enemata, and heat externally. Slow improvement in strength followed to the final recovery of health.

Soon after the great depression from the loss of blood, a large abscess formed, and was opened at the left sterno-clavicular articulation, relief of all unpleasant symptoms about the chest following.

This case illustrates the possibilities of treatment in the presence of rapid death of so much tissue, the fever decreasing after the removal of the gangrenous part, just as it does upon the evacuation of a large acute abscess. I believe the circumscribed slough of the stump was caused from bruising by the Esmarch bandage, which slipped off the end of the stump during its removal, compressing for a moment the soft parts, just as the string does the neck of a wheat sack. I am led to this conclusion from the fact that no fever accompanied its course.

CASE II.—I was called by Dr. R. L. Thompson, in August, 1885, to see Reuben Pope, aged fourteen, who had fallen from an apple-tree, sustaining a compound fracture of the right forearm two and one half inches above the wrist-joint, the bones protruding through the anterior surface of the arm, and the ends of the upper fragments filled with sand and dirt. Both arteries were intact, as evinced by pulsation below. It was decided to attempt to save the arm. The bones were resected, the parts adjusted nicely after thorough cleansing and an open gutta-percha splint applied over oakum, provision for good drainage being made. The boy was immediately removed from his home in the outskirts of the city to the colored surgical ward of the City Hospital. The second day surgical fever ran high; parts dry; no pus in the wound. On the fourth day discoloration and blisters appeared about the elbow, rapidly spreading upward and downward; patient much depressed; rapid and thready pulse; temperature 104.5° F. Before a consultation could be called the swelling had reached the shoulder, and soon after the neck. It was decided to amputate as near the shoulder-joint as possible. This was done by the circular method, Dr. Jenkins, the attending Intern, being allowed to op-

erate. There was marked infiltration of the skin and cellular tissue noticed as the knife passed through them; and an abundant straw-colored fluid exuded. The stump was dressed by the open method, with drip. The temperature fell, as in first case, and the boy made a slow recovery under the usual supportive treatment. In the third and fourth week pain, fever, and swelling appeared, and finally an abscess of the stump developed and was opened by Prof. Cartledge, who succeeded me in the service. The boy making rapid improvement after this: he was soon discharged cured.

The causes of the gangrene in Case 2 might be debated whether or not the contaminated condition of the air in the surgical ward played any part; or whether, like Case 1, it was obstructive gangrene. In Case 2 the amputation was done in the open air, and the after treatment was conducted in a tent. The lesson to be learned from these cases is that *the treatment should be early and high amputation* as the only chance of saving life.

NEW OPERATION FOR FISTULA IN ANO.

BY JOS. M. MATHEWS,
M. D.

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Many operations have been devised for the cure of fistula in ano, all of which have had as their chief aim the substitution of some remedy more pleasant than the knife.

Hence we have the elastic ligature, the silk ligature, injections, etc., all of which have served some good purpose, but none of which have succeeded in supplanting the knife in all cases.

Very much can be said in favor of each method, but certain it is that their employment is restricted to exceptional cases.

Injections are of but little avail in old standing cases, for the reason that the membrane lining the sinus is of such thickness and composition that it resists medication. If the healing process is established at all it is at the external orifice only, and this is not desirable.

When the ligature is used, either the elastic or non-elastic, the top portion only of the fistula is divided leaving the bottom untouched, hence deviating from a rule in surgery which is imperative, viz: "fistulous sinuses must heal from the bottom." It was to obviate this difficulty that I devised the method which I shall describe. Briefly the plan is this:

Taking the ordinary exploring probe, it is inserted into the external orifice of the fistula to determine, if possible, that only one sinus exists. Fortunately the majority of fistulæ are of this kind. Being satisfied of this fact, I then take a long, slender laminaria tent, and push it gently into the fistulous sinus to the fullest extent that it will go. This I allow to remain for several hours, keeping the patient under observation during the interim, at the end of which time it is withdrawn. This procedure causes but little if any pain. The laminaria tent is preferable to sponge for the reason that it furnishes its own moisture, which assists in its withdrawal.

After this dilatation, I take Otis's improved *urethratome*, with small point; closing the instrument tightly, it is pushed gently as far into the sinus as it will go, and then by the aid of the screw attachment dilate the sinus. When this is done, the turning of the screw at the end of the instrument will cause the concealed knife to protrude at the distal end, according to what measurement you desire. The instrument is then carefully withdrawn, cutting through the *wall* of the sinus throughout its whole length. The cut, as will be perceived, has been made subcutaneously, and the pain is insignifihaht. What hemorrhage takes place is easily controlled by pressure. In several cases I have turned the instrument and reinserted and practiced the same procedure upon the opposite side at one sitting. If this is not thought advisable, the patient is allowed to go several days before repeating the operation, which is to include the other side.

The advantages that I claim for the ope-

ration are, viz., over the injection-plan it must take precedence for the reason, as above stated, that the injection of any agent that is commonly used for such purposes does not accomplish what is desired. The sinus is lined by a thick pyogenic membrane, which will, in the majority of cases, resist the action of said agents; hence, it is impossible to get healthy granulations. With this instrument both the top and the bottom, or each side (if necessary) can be *cut through*, thereby insuring a good granulating surface, and this too without pain. Over the ligature, either elastic or non-elastic, it possesses the advantage of cutting through both top and the bottom, or each side of this thick membrane, while the ligature can not possibly go through any but the top of the sinus, as it cuts its way out leaving, of course, the callous bottom, which in many cases would refuse to heal, it being a positive rule in the operation for fistula, established by Mr. Salmon, that the *bottom* of all these tracts must be divided to insure a cure.

Again, in using the ligature the sphincter muscle, or muscles, must of necessity be divided if the internal opening be above them. In the operation with this instrument the muscle is never divided or interfered with; over the knife it can be claimed that this operation dissipates all horror in those patients that dread the knife, that excessive hemorrhage is avoided, and that the sphincters are not cut, and add to this that the patient is not confined to bed or taken from business.

In the majority of cases which I have treated by this method, I have done so without their knowing that any thing in the nature of an operation had been done. Exhibiting the instrument to them, the knife being concealed in its case, they have never known other than that it was a probe.

If I find after the lapse of a few days that a sufficient depth was not reached, the instrument is again inserted and the same procedure practiced. The patient is kept under observation a sufficient length of time

to be assured of a perfect cure. Where pus cavities are found, or many sinuses exist, of course this operation is not advised. But in the selected cases mentioned I am sure that the advantages claimed for it will be realized. A score of cases in my practice attest its value.

EARLY REMOVAL OF SUTURES.

In the *American Practitioner*, October, 1873, page 222, may

be found an account of a case of entropium which was subjected to the operation of dividing the free border of the lid from the punctum lachrymarium to the outer canthus, and the removal of a narrow elliptical fold of integument including the middle portion of the orbiculari muscle as it lay upon the upper lid, quite exposing the tarsal cartilage.

The strip of integument containing the eyelash was slipped up on the surface of the tarsus and secured with interrupted silk sutures.

The operation was done May 6, 1873. Upon the following day, union having occurred between the apposed surfaces, the sutures were removed. Since that time, both in private practice and at the Hospital College clinic, sutures about the eye-lids and face have generally been removed in twenty-four hours after the operation, never later than forty-eight hours. This rule is so important, as tending to prevent suppuration along the course of the suture in the wound, and thus secure the most perfect closure of skin-wounds, that surgeons should observe it whenever practicable.

MR. LAWSON TAIT never permits any thing in the nature of organic matter to remain about his hospital, and never examines a patient there until she has taken a bath, changed her underclothes, and gone to bed. He is scrupulously clean in every thing he does, consequently he can well afford to express contempt for such germs as are commonly found in less cleanly places.

EYE, EAR, AND THROAT.

FURUNCLE OF THE EXTERNAL EAR.

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The following case of furuncle of the external auditory meatus presents some unusual features, and at the same time illustrates the intense pain and severe constitutional symptoms which the disorder may produce:

On the afternoon of

May 15, a strongly-built, robust-looking negro man, somewhat past middle life, came to the Hospital College of Medicine of this city, complaining of a severe pain in the left ear, to which he constantly held his hand. He stated that two days previously he had picked his ears with a little piece of steel, and after a few hours noticed a pain in his left ear; this increased to great agony and entirely prevented sleep the ensuing night; he had felt no dizziness and no "ringing in the ears;" when directed to blow at the same time holding his nose and compressing his lips (inflation by the method of valsalva), he said that he felt the air go into his ear, but it caused no pain; there was little, if any, impairment of hearing on the affected side.

On examination I found great tenderness just in front of the tragus, and when pressure was made upward and inward beneath the concha; within the meatus, but near its external opening, was a pale-red swelling, distinctly circumscribed and acutely sensitive. With two probes I thought I could detect a little fluctuation; the obstruction in the canal prevented any view of the membrana tympani; the diagnosis of furuncle in the external auditory canal was made, and (it not being my usual clinic evening) the patient directed to come to my office; he walked there, a distance of some six squares, complaining of nothing except the intense pain in the ear. Mr. Hines Morgan, one of the students at the college, accompanied me to my office and aided me in the management of the case.

I first syringed out the ear with tepid water—a process which the patient declared to be rather pleasant than otherwise. The point of most decided swelling and tenderness was easily reached, and with a narrow bladed bistoury I made a puncture into it. The pain at the instant was very acute and nearly caused the patient to faint; a drop or two of pus and about a teaspoonful of blood followed the operation. I again syringed the ear, and gently wiped it out with a little absorbent cotton wrapped on a probe. The pain having partly subsided, I gave the patient directions for treatment, and allowed him to rise from the chair in which he was sitting; he had scarcely gained his feet, when he became very dizzy and seemed about to faint; with the assistance of Mr. Morgan I laid him on the sofa; he put his hand to the affected side of the head and was evidently suffering excruciating pain. I gave a hypodermic morphia. I could get no reply to questions. He became rapidly delirious, and in a severe paroxysm of pain went into a tonic convulsion. This consisted chiefly of opisthotonos. The head and lower extremities were drawn back, the chest protruded, and rigid, and respiration irregular. After about half a minute, probably, though it seemed much longer, the convulsion passed off, but the patient was still delirious. These spasms were repeated three or four times; the delirium between them gradually passing into a semi-conscious state; the pupils were slightly dilated; the pulse was weak and I gave a drink of whisky. After about one hour and a half complete consciousness returned and the pain was easier. I sent the patient home in a wagon under the care of Mr. Morgan and went immediately to see him; found him in bed still complaining of some pain in the ear, though not near so severe as before the furuncle was opened; directed the application of cloths wrung out in hot water to the ear that night, and bromide of potassium and chloral hydrate internally. On visiting the patient next morning I found him at work and apparently quite well—said

he had still a little pain in the ear, and there was a slight tenderness about the tragus.

On further examination to obtain some evidence of other disease, or some clinical history to explain the unusual character of the case, I could find on the patient nothing to indicate a former injury, except a depression and scar in the middle of the forehead. The following history was given: Patient was fifty-nine years old and in good health; had never suffered from syphilis, nor any other constitutional disease; had never had epilepsy—unless the “fits” to be presently mentioned were of that character. When a boy, some twelve years old, his head was hurt by a fall, and the scar on the forehead followed this. Some ten years ago he again met with a serious accident, of the exact nature of which he knows nothing—says a hog's-head of tobacco rolled over him, and he was sick for about two months, and in this time had several “fits.”

This incomplete and vague history was all that could be obtained, and vague as it is, it seems to me that if we grant its correctness in the main, it may aid us in accounting for the convulsions and delirium which followed the puncture of the furuncle; for those “fits” which the patient claims to have had after his last injury, and which were probably of an epileptiform character, may have left his nervous system in such a state that a trauma, to others comparatively slight, would suffice to develop in him the tendency to convulsive seizures. At least I can find no other hypothesis to account for the phenomena.

Two other explanations might present themselves: First, that the unusual symptoms were excited by rough and careless manipulation either in the puncturing or in the subsequent cleansing. This I am sure I can disclaim, for being aware of the intense pain, and occasionally grave symptoms attending furuncle of the external auditory canal, I was especially careful and gentle in my proceedings; or, secondly, that the patient was habitually subject to epileptic at-

tacks, and that the operation served to bring one on. This seems unlikely, both from the positive denial of such a habit on the part of the patient and those who knew him, and from the nature of the attack, which was decidedly different from ordinary epilepsy.

Turning from the consideration of this case to a brief review of the literature of furuncle of the external auditory meatus, we find that it is described by all writers as an exceedingly painful affection, and according to Pomeroy "sometimes the systemic disturbances may reach the point of high fever, delirium, and even convulsions." The same author asserts that any form of traumatism may induce a furuncle, and the picking the ear with a piece of steel would seem to have been the exciting cause in the case above recorded. Von Troltsch claims that the instillation of astringent solutions, especially alum, into the ear, is a common source of circumscribed inflammation. According to Roosa furuncle in the meatus externus occurs only in persons of depressed general health. I have certainly seen cases in which no such impairment could be found—no anemia, and no depression, and at the same time no history of local irritation. Tinnitus is usually absent, unless the swelling presses on the membrana tympani. Deafness is in proportion to the obstruction in the canal. The affection is not dangerous, and our chief anxiety must be on account of its liability to recurrence and the often excruciating pain that attends it. After the incision granulations are apt to spring up in the edge of the wound.

As regards treatment opinions differ; there can be no doubt however that early incision is advisable, even before the presence of pus can be detected; after the incision warm applications. This may be done by allowing a stream of warm water to run gently into the ear, or, as recommended by Roosa, a finger-shaped poultice may be lightly laid in the meatus; moist warmth, however, must not be long continued, for it undoubtedly tends to the creation of granulations and

polypi, and occasionally to chronic diffuse inflammation; accordingly, should the pain continue, dry warmth should be applied by means of hot water in a rubber bag, or a piece of cotton wool thoroughly heated and laid against the ear, or by letting the affected side rest on a hot salt-bag, or some such device. Leeches, of such brilliant service in middle ear disease, accomplish but little in furuncle of external auditory meatus. Instillation of a solution of sulphate of atropia of the strength of four grains to the ounce is highly spoken of. I have never seen it used. A few drops of Magendie's solution in the affected ear sometimes gives relief.

Where a constitutional predisposition exists anemia is usually present, and iron and quinine are indicated. In case of frequent recurrence of the furuncle, I should certainly be inclined to try the sulphide of calcium as advised by Ringer, though Dr. Roosa says that in his hands this drug has proved utterly useless in such cases. I am sure I have seen it of service in the furuncular tendency in other parts of the body, given in doses of one-fourth grain every four hours. Von Troltsch recommends Fowler's solution.

Finally, the cause of furuncle has been attributed to a microbe, and the return of the affection to the continuance of the germs and their attacking other points. In view of this origin antiseptic treatment has been introduced, and great diminution in the cases of recurrence claimed to result from it. Though without experience in this line of treatment, I confess that I lack faith in it, and believe that relief will be most speedily and surely obtained by early incision, and the application of warmth, which may for a short time be moist, but should be continued, if necessary, as dry, and that the return of the furuncle will be best prevented by the avoidance of any local irritant, by giving tone to the general health, and probably by the use of the sulphide of calcium.

THE Hospital College commencement occurred on the 17th of June.

NASAL OBSTRUCTION WITH REFLEXES.

BY
J. ADDISON STUCKY,
M. D.

LEXINGTON, KY.

be no rare points in either the history or treatment, but the statistical importance of such cases induces me to report them.

CASE I.—L. D. C., aged sixty-nine, farmer, applied to me for treatment for facial neuralgia, January, 1882. Had suffered greatly for a year or more, and had been treated by several physicians without experiencing more than temporary relief. One physician had told him that he had disease of the cheek bone, and a surgical operation was necessary. On this account he consulted me. He gave the following history of his trouble: About two years ago began to suffer pain over his right eye, extending to the temple, with occasional darting pains in the right ear. Suffering was greatest at night, and in damp weather. Had taken a great deal of quinine and morphine; used the latter habitually—about two grains a day. Had been blistered over the right eye.

These symptoms continued until several months ago, when he noticed he could not breathe through his right nostril (when he blows his nose very hard he feels something move backward and forward; in the recumbent position, he has to breathe entirely through his mouth). Six weeks ago he noticed the right side of his nose was very much swollen, and cheek bone tender to the touch. The swelling and pain gradually increased until the prominence of the cheek bone and bridge of nose were on a level. Vision in right eye almost gone; and, lachrymation being very profuse, the nose was constantly discharging a watery substance which kept the nostril and lip irritated and red. Had never had his nose or throat examined.

General health, poor; no appetite (tongue

heavily coated, and odor of breath very offensive).

On examination, I found right nostril very much distended, and surface of the nose and right cheek swollen and very tender. The swelling extended upward so as to almost close the eye, and downward to the angle of the mouth. Complains of constantly throbbing pain in the cheek. Conjunctiva swollen and echymosed. Right membrana tympani, congested and bulging. Tinnitus aurium constant. Anterior rhinoscopic examination revealed the right cavity occluded by nasal polypi, with discharge of offensive muco-pus. The lining of the left cavity is slightly atrophied and covered with crusts of decomposing mucous.

Had atrophic pharyngitis. Posterior rhinoscopic examination showed the pharyngeal vault covered with large crust of dry muco-pus. The right post nasal opening was occluded by polypus. The left is covered with muco-pus.

Diagnosis.—Abscess of autrum of Highmore, due to intra-nasal pressure. The patient was told that an operation—removing the nasal polypi, and probably perforating the autrum was the only thing to be done for him. He readily consented. Three nasal polypi, above the average size, were removed with Rumbold's polypus forceps, and the nasal cavities thoroughly cleansed. This relieved the pain in the head and eye.

On the following day a discharge of pus was discovered in the middle meatus of the right nasal cavity, having made its way through the small opening leading from the autrum. I endeavored to enlarge this opening, but did not succeed well enough to give free exit to the pus. I next made a free opening into the autrum through the canine fossa with a dental drill, and washed the cavity with carbolyzed water. This, in connection with daily applications of warm vaseline and carbolic acid (by means of spray) for two weeks, relieved all the annoying and painful symptoms. The cheek soon returned to its normal size and shape. Mild, as-

tringent applications were made to the eye, and Politzer-ation relieved the tinnitus aurium. Patient was treated for seven weeks, once or twice a week, and declared himself entirely relieved.

I am indebted to Dr. A. O. Rawls, of this city, for valuable assistance and advice rendered in the management of the case.

CASE II.—M. C., aged thirty, consulted me, May, 1886. Says she "has something growing in her nose which stops her breathing." Nasal obstruction was first noticed ten years ago, and a nasal polypus was removed; this gave her relief. For a year or two she has noticed gradually increasing obstruction in right nostril. Is very much emaciated, of strumous diathesis, coughs a great deal when in the recumbent position, but very little when walking or standing. Is troubled very much with nightmare. Has constant "dull, aching pain" in the right eye, profuse lachrymation, and for several weeks past a throbbing pain in right cheek bone. All the teeth on the right side ache very much at times. Is troubled very much with vertigo. Has been treated for facial neuralgia, and taken a great deal of quinine and morphine to relieve pain. Has constant crackling noise in her right ear. Has frequent attacks of asthma in damp weather.

Examination shows chronic conjunctivitis. Hearing in right ear impaired. Right membrana tympani slightly opaque and without polish. Tuning-fork is heard best in right ear. Right cheek swollen and sensitive. Right nostril very much distended by nasal polypi. By elevating the tip of the nose with your finger, and at the same time causing patient to blow her nose, the polypi would protrude half inch or more.

Jarvis' snare was applied with some difficulty owing to the size of the growth. After adjusting the noose, a few turns of the screw cut through the pedicle, the snare was withdrawn, but the polypus remained, and on account of its size had to be divided before it could be removed through the nostril. The

removal of this polypus afforded very little relief, and an examination revealed the fact that the entire nasal cavity was filled with other polypi. A posterior rhinoscopic examination was made; the obstruction extended to the post-nasal opening.

The snare was again applied until nine polypi were removed. An hour or more was occupied in completing the operation. The hemorrhage was very slight, and little pain complained of. A two-per-cent solution of mur. of cocaine was sprayed into the nostril after removing the second polypus. The aggregate weight of the polypi was 163 grains. After cleansing the nasal cavity, a thorough examination showed no sign whatever of the inferior or middle turbinated bones, excessive pressure having caused progressive absorption of them. The left nasal cavity was normal; no evidence of catarrhal inflammation was discovered in the pharynx, nasopharynx, or larynx.

On the following day a thirty-per-cent solution of glacial acetic acid was applied to the basis of the polypi, after which warm vaseline was sprayed into the anterior and posterior nares. In one week after removal of the polypi the patient expressed herself as entirely relieved.

CASE III.—T. D., aged forty-three, consulted me in October, 1885; complained of roaring in his left ear, intolerance of light, vertigo, and pain in the back of his head. Had a troublesome cough in the morning; hawked and spat up a great deal of tough, yellow mucous; could not breathe through his left nostril.

About a year ago he fell off a wagon and mashed his nose; did not think any of the bones were broken. Since then he has never breathed through his left nostril. Anterior rhinoscopic examination of the right side showed separation of the cartilaginous from osseous septum. The space between the two being covered by membrane. There was slight hypertrophy of the tissues covering the inferior turbinated bone; secretion very scant.

The left cavity was almost completely occluded at the junction of the cartilaginous with the osseous septum. A probe on being passed through the inferior meatus caused considerable pain.

Posterior rhinoscopic examination showed hypertrophy of the tissues of inferior and middle turbinated processes, greater on the left than the right side. There was abundant secretion of muco-pus covering the orifices of eustachian tubes and vault of the pharynx; tuning-fork heard best in left ear; hearing in right ear 36-40, in left ear 8-40.

A four-per-cent solution of mur. of cocaine was applied to the anterior and posterior nares by means of spray, in order to enable me to make a more thorough examination. After the parts were thoroughly anesthetized, I discovered that the occlusion of the left nasal cavity was membranous, the cartilage being united to the tissues of the inferior and middle turbinated bones. The patient readily consented to an operation, which consisted, first, in dividing the membrane between the cartilaginous and osseous septi; second, separating the cartilage from the tissues covering the turbinated bones. After accomplishing this, the cartilage was forced into its normal position with Bosworth's septum forceps, and after the hemorrhage was checked the cavity was packed with strips of carbolized lint. These strips were two inches long and half an inch wide, and were placed in the cavity one upon the other until it was firmly packed, allowing the ends to protrude through the nostril; this served to retain the septum in its normal position.

The operation was attended with very little pain or hemorrhage, and, an hour afterward the patient complained of considerable pain in the nose and left cheek; an opiate was administered and cold application kept to the nose. The after-treatment consisted in spraying the posterior nares, with carbolized vaseline (1 gr. to 3i) twice a day. On the evening of the second day after the operation, the tampon of lint be-

came loose, and was removed and another inserted. This remained two days longer, when it was removed, and union was found to be perfect. There was still a slight deviation of the septum, but not enough to give rise to any annoyance. The posterior hypertrophies were destroyed by a single application of chromic-acid paste. The patient was treated for five weeks, and discharged completely relieved.

NASAL CATARRH.

BY G. Q. ORVIS, M. D.

SEYMOUR, INDIANA.

[Read to the Mitchell District Medical Society, at Seymour, June 4, 1886.]

I present to you to-day a short paper on Nasal Catarrh, or a more appropriate term Rhinitis. This term applies to the abnormal

condition we so often find affecting the membrane which lines the nasal cavities, and may be in the acute, subacute, or chronic stage. As to form we may find either the simple, the hypertrophied, or atrophic. The latter being known as œzena, and should be treated as a separate disease.

Rhinitis in the acute stage is generally known as coryza, and mucous membranes continuous with the Schneiderian, lining other cavities is generally affected at the same time. The condition we know as a bad cold, hay-fever, and the coryza present during exanthematous fevers are forms of acute rhinitis. It is from the frequent recurrence of this acute trouble that the subacute and chronic forms appear; it is this condition that is most often seen by the physician, and it is the disease in this stage with which this paper will deal.

To correctly understand rhinitis we must look at the anatomical structure with which we come in contact, and we find a membrane lining the nasal cavities extending to other cavities, composed of a basement membrane of areolar tissue that contains numerous mucous secreting glands, covered externally by epithelium of the ciliated variety, through which the ducts of the mucous glands open and pour forth their excretions. This membrane is abundantly supplied with

blood vessels, both arterial and venous, and its nerve supply is very liberal coming from the four systems of nerves, viz: the special sense, the sympathetic, the motor, and the common sensor. That part of the membrane above the middle turbinated bones is known as the olfactory membrane, and receives the olfactory nerve filaments; therefore is the membrane of smell. The cilia on this membrane are longer and the venous supply is less; therefore, we have a darker colored surface here than in other parts of the nasal cavity. The membrane below the middle turbinated bones is known as the pituitary membrane. Nothing in particular is necessary to say about this, except the support which it gives to the blood vessels is very poor; congestion takes place easy and soon becomes passive. These membranes or membrane, as we choose to consider it, covers the bony and cartilaginous walls of the nasal cavities; also covers the turbinated bones found in the cavities. The structure of these bones is peculiar, they being almost semi-cartilaginous, of many surfaces and very liberally supplied with vessels; they are thinly covered with tissue, and when their covering is irritated becomes greatly enlarged by the engorgement of blood, especially when the irritation is lasting or often repeated. This imperfect anatomical sketch will be sufficient for our use in this paper, and we will look at the physiology for a moment.

The most important function is for the preparation of the air, which passes over its surface during respiration. The inspired air is warmed, and probably a certain amount of moisture added to it in passing over the Schneiderian membrane. This fact is proven in two ways; first, if we have complete stenosis of nasal cavities, and the person so affected becomes a mouth-breather, we are sure to have acute inflammation of the lower part of the respiratory tract; indeed, so true is this, that I am quite sure it could be proven that all persons suffering from asthma are mouth-breathers. Two

cases which I have treated for asthma quite recently, and which are well-known to all of the physicians in the city, are both suffering from nasal stenosis, and both inspire air through their mouth.

The cause of this inflammation is no doubt an improper condition of the inspired air when it reaches the bronchi and air cells, being too cold and dry, and not as nature had intended it to be. Another proof is, that the great danger in tracheotomy is the congestion and extension downward of the inflammation, and consequent closure of the air cells produced by cold inspired air; in fact, so great is this danger that intubation of the larynx is now coming into use and is more successfully used than tracheotomy, and no other reason can be given for its superiority. The special function of smell we will not dwell upon, as it is generally known that its loss causes no great inconvenience, and, therefore, to the human race is not very important, although in the brute creation it is one of the most important of senses. Another function is the act of excretion, and just how far this affects the human system we are not prepared to say, but no doubt there is a great deal of morbid material taken out of the circulation in this way, and when it is checked a great many ailments may be caused, which are well understood when we work out the problem of re-absorption of worn out matter and reflex irritation.

We will now notice the pathological conditions we find in rhinitis, and then pass on to the treatments supplemented by the clinical history of a few cases that have been in our care. We always find in chronic rhinitis a discolored membrane, and if the disease has not passed from the hypertrophied condition, which is considered the true state of this trouble, we have a thickened membrane with enlargement of a part or all of the turbinated bones and thickening of the vomer. The symptoms of this condition are lassitude, fever, and stenosis, or as the patient describes it, a stuffy feeling in the head.

Auxillary symptoms are local pain caused by pressure upon some nerve filament, reflex headache, deafness, caused by stoppage of the nasal orifice of eustachian tube, pharyngitis from extension, and ocular conjunctivitis.

The treatment for catarrh is as varied as the number of patients you meet; no set treatment will answer your purpose. First of all to remove the cause and to illustrate this I will cite a case. My first case of rhinitis was in the six-year-old son of a Mr. S. of this city. The left nostril was closed by the thickening over the external end of inferior turbinated bone, and the swelling above this caused a bulging of the left alae of the nose that was very perceptible. A very fetid discharge was oozing from the nostril, and the boy was suffering from what appeared to be remittent fever. In this case fortune favored me, for without scarcely knowing why I should do it, I introduced a blunt probe, and my maneuvers dislodged a good sized piece of a chip, which was blown out of the nostril by an effort of the little patient to get away from the cruel probing he was undergoing. I then supplied the mother with a Pierce nasal douche and gave her directions for using it, and requested her to bring the boy to me again in three days. She did so and I found the nostril quite open, the swollen condition reduced very much, and another piece of a chip in sight which I removed, and in a few weeks the nose was entirely well. I learned that this boy had been treated by two of our older physicians for several months, and one of them had pronounced it cancerous. In a blundering way I had relieved the boy and made myself famous in the eyes of this family. From this one case I learned to always try and remove the cause if it can be found. If scarlatina, or any of the other exanthematous fevers be the cause, then treat them, and oftentimes when the constitutional troubles they produce are gone our catarrhal trouble will cease.

Undoubtedly catarrh is more prevalent

now than in years past, and is perhaps caused by inhaling poisonous gases and bad air. It is not always easy to remove the cause and must be treated by remedies suitable for its cure. When we find ulceration and sloughing going on we may expect to find pressure from some source over the ulcerated surface, and generally this is made by hypertrophied tissue opposite the excoriated surface. If the condition has been long present, as we will learn by subjective examination, and we feel positive that medical applications are of no avail, then the best means to employ is something which will remove the redundant tissue. If this be soft the Jarvis snare is most convenient, and is used by first transfixing the lump, and then drawing the wire around it when the part comes away readily.

To illustrate, I will report the case of Mrs. S., a young German woman, who came to me three years ago suffering with bronchitis, as she thought, and so it was, but this was not the primary trouble; she had a very bad pharyngitis and rhinitis, the latter, in my opinion, being the cause of all the other conditions. I treated her by swabbing, and brushing, and internal medication for nearly a year, until I left my practice and went away to brush up, with but slight success. Upon my return the patient returned and, having given this disease some attention while away, I made a more thorough examination, and found a badly hypertrophied condition of the posterior ends of the inferior turbinated bones; these lumps I cut away, by using a transfixing needle and a pair of long scissors, a rather rude way but still it was successful, and in a few months I was rewarded with a perfect cure; the pharynx returning to its normal condition under the use of astringents; the bronchitis has left and the lady now reports herself well.

The medication used was liq. hydrastia, mur. amon. in solution, and tr. ferri. mur. applied in spray-form. Sometimes cases present themselves to you where there is

simply congestion, but not enough to amount to hypertrophy; in this class of cases we must rely on applications, and one giving me the best result is argenti nitras in spray-form used every third day, followed by placing a little bit of an ointment made by mixing glycerine and boracic acid, evaporating to a semisolid consistency by heat, and in a short time our efforts are crowned with success.

Another condition we often meet with is where there is an osseous enlargement that is pressing some opposing part and causing irritation; this must be removed, and the most efficient means for this removal is the multiple knife, which is made to revolve by the motion of the hand, or a foot-lathe, and cutting away the growth and bringing the parts down to a level. Another instrument used is the pointed scissors and forceps.

Not long since a young man presented himself to me for treatment for catarrh. Upon examination I found a sharp node grown out from the vomer, and the tissue opposite considerably excoriated. In the act of respiration you could see the parts rub against each other, and it was easy to account for his catarrh. After a few weeks of treatment to heal the excoriated surface and to relieve the inflammation as much as possible, I removed the node with the jointed scissors, and the case is progressing rapidly towards recovery. Another remedy often used is caustics, either solid or acids, to produce a slough, but if the osseous tissue is enlarged this will fail, and if only the soft tissue be involved surgical aid is much nicer and more pleasant for the patient. There are other remedies, such as the galvanic cautery and pastes to be applied, but these should only be used by the most expert manipulators, and I have tried to keep within the pale of the regular practitioner, only giving those remedies which can be used by any careful, observing physician.

I have also only spoken of true nasal catarrh, not having touched on œzena,

which is catarrh in an atrophic form, thinking that this had better be left to itself, as it is a condition hardly ever cured—only relieved.

In closing I wish to speak of the application of remedies and the best mode of procedure. First of all the membrane should be thoroughly cleansed of all mucous, and this is best done with a cotton swab and some alkaline solution, and then thoroughly sprayed to be sure that all folds are clean, then throw your medicated fluid in in the form of spray forced by condensed air or hydraulic pressure, and use enough pressure to be sure that every fold and sinus receives some medication; there need be no fear of injuring the middle ear by this method, or in doing any other damage, and you leave no corner for the disease to hide in, and again light up the whole surface of the nasal cavity.

HEMORRHAGIC LARYNGITIS.

BY M. F. COOMES,
M. D.

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Diseases of the Eye, Ear,
and Throat, in the Ken-
tucky School of Medi-
cine, Louisville.*

The above title is not a very familiar one to readers of medical literature, and is indeed not often met with anywhere outside of works devoted to diseases of the

throat. Hemorrhages from the larynx proper are not of very frequent occurrence, and are not often attended by serious results, but are generally alarming to the patient. In fact, any form of blood-spitting usually excites the person in whom it occurs.

As to the causes of laryngeal hemorrhage they are many, the most common being ulceration, the result of tubercular disease. Syphilitic ulcerations are also attended at times by slight hemorrhages. Any thing that produces a solution of the continuity of the mucous surface of the larynx will result in hemorrhage. Wounds of all kinds involving the laryngeal membrane are followed by hemorrhage, more or less profuse, the amount of blood lost depending upon the nature of the wound. Severe acute inflam-

mations of the larynx are occasionally accompanied by a slight loss of blood. In whooping cough sometimes there is slight bleeding from the larynx, produced by rupture of a capillary blood vessel while the patient is coughing.

In my own practice I have seen but two cases of capillary hemorrhage from the larynx, where there was no breach of continuity; the first was in the person of a colored man, several years ago. The case was reported at the time in the *Medical News*. The hemorrhage was insignificant in quantity, but persisted for four or five days, and then subsided under the use of quinine and ergot.

The second case occurred recently in the person of an Italian fruit-vender, fifty-six years of age. He was also the subject of pulmonary phthisis, and was greatly reduced in flesh, and extremely anemic. Upon critical examination I found a number of well-marked purpuric spots on his chest, arms, and neck. The left side of the roof of the mouth was entirely covered by an extravasation of blood beneath the mucous membrane. The left half of the epiglottis anteriorly and posteriorly was also covered by a similar extravasation. The hemorrhagic patches in the mouth and the larynx, were identical with those on the other portions of the body, with the exception that there was considerable swelling of the epiglottis, and a constant oozing of blood from the surface of the extravasated patch. There was no oozing from the purpuric spot in the mouth. I ordered the patient plenty good food, and wine or whisky *ad libitum*, with muriated tincture of iron every four hours. No local medication was used. I returned on the fifth day, and found that the extravasation in the roof of the mouth had almost disappeared, only a small blotch, about the size of a dime, remaining near the median line in the anterior portion of the roof. During this period the entire epiglottis had become involved in the purpuric condition, but the bleeding had almost entirely ceased,

and the extravasation about the epiglottis was rapidly disappearing. At this writing, fourteen days after my first visit, the patient is able to be up and about, with the prospect of making a good recovery. All of the extravasated blood has been absorbed, save a quantity on the anterior portion of the epiglottis. Before making a laryngoscopic examination, I thought that I would find the patient's throat involved in the tubercular disease, but critical examination failed to reveal any tubercular manifestation in the larynx; and I feel fully confident that the case is one of purpuric origin, and at the same time I believe that I have the honor of reporting the first case of the kind.

Navratil reports a case in which "the vocal cord was covered with a dark brown layer of blood, which reformed several times after being wiped off. The mucous membrane underneath was swollen and injected."

Frankel reports a case similar to Navratil's, but "more extensive, and present also in the trachea." The hemorrhage in this case was the result of an acute catarrhal inflammation of the larynx.

Tobold reports two cases of hemorrhage occurring in connection with acute catarrhal laryngitis; one from the edge of the epiglottis, and the other from the right vocal cord.

Mandel observed hemorrhage from one of the ventricles of Morgagni. Turck describes a fatal hemorrhage occurring in a case of laryngeal syphilis. The bleeding occurred from an eroded lingual artery.

Bogros describes a case in which symptoms oedema of the larynx suddenly occurred in a patient twenty-two years of age, ill with variola hemorrhagica. The autopsy revealed infiltration of the ary-epiglottidean folds from blood, and not from oedema.

Dr. Pfeufer reports a case, "the patient, forty-five years of age, who had incurred mercurial stomatitis from using inunction with mercurial ointment as a parasiticide, became ill with cough and symptoms of laryngeal stenosis, as was supposed from cold, and after five hours died from suffoca-

tion. The autopsy showed a submucous extravasation of blood beneath the right ventricle of morgagni, from one to three lines in thickness and a square inch in extent, and at the corresponding part on the left side a superficial extravasation."

McKenzie mentions the fact of having seen a few cases, but gives no special history of them.

ANTISEPTIC COLOGNE.	The introduction of an agreeable and at the same time powerful
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antiseptic has been accomplished by Messrs. Parke, Davis & Co., of Detroit. The term antiseptic is hardly sufficient to express the action of an alcoholic solution of bi-chloride of mercury, of the strength of one grain to the ounce of the fluid.

This cologne sprayed freely into the air of the lying-in chamber and the apartments occupied by consumptives, will be found sufficient to arrest, or at least delay the processes of decomposition in putrid matter.

In cases of tuberculosis the cologne has valuable therapeutic properties.

RAPID GROWTH OF TUBERCLE BACILLI.	In collecting tough masses of lymph from the sputum of tuberculous subjects it often
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happens that several hours elapse before the matter is examined, and then it is found almost or quite all transformed into a watery fluid. Examination of this fluid shows a pure culture of tubercle bacilli.

The liquefaction of half a fluid drachm of tenacious lymph has been completed in eight hours, in an atmosphere of 68° F.; the lymph being exposed on a sheet of writing paper lying upon a table. Non-infected lymph dries into a hard crust under like circumstances.

THE jointed rods which develop into chaplets, found in the blood passed from the bowels of persons having typhoid fever, are thought to be a species of spirillum.

OBSTETRICS AND GYNÆCOLOGY.

MANAGEMENT OF
THE SECUNDINES.

BY WM. H. WATHEN,
M. D.

Professor of Obstetrics and Diseases of Women and Children in the Kentucky School of Medicine, Louisville.

[Read to the section on Obstetrics of the American Medical Association at St. Louis, May 4, 1886.]

One year ago, at the meeting of the American Medical Association in New Orleans, I read a paper in this section on the "Treatment of the Membranes in Abortion and in Labor," but I do not offer an apology for reading another to-day.

Authorities in medicine do not agree as to the management of the third stage of abortion or of labor, and the subject is being extensively discussed in this country and in Europe. At the Meeting of the British Medical Association at Belfast, in 1885, it attracted the attention of distinguished physicians of England, who failed to agree in many respects as to the best mode of treatment.

Felsenreich in the January, 1886, number of the "*Wiener Klinik*," and the great French obstetrician, Professor Pajot, in the February number of the "*Archives de Tocologie*," wrote exhaustive papers on this subject, the former advocating and the latter opposing expectation. Most physicians who leave the expulsion of the membranes to nature are willing to remove the placenta when it is expelled from the uterus, but there are some who refuse to do so when it lies loose in the vagina. There are many who believe expectation is pernicious, and who remove the membranes from the uterus by expression, after the Credé or Dublin fashion, or draw upon the cord or edge of the placenta; or if the membranes adhere introduce the fingers or a hand into the uterus and separate and remove them.

Nor is our profession agreed as to the mechanism of the separation of the membranes from the uterus. It is argued that it may result from contraction or reduction of the placental area of the uterus, causing a retro-placental clot at the center or at the periphery of the placenta, which completes

the separation; or from a relative inequality in the contractile or retractile powers of the uterus and the placenta and membranes, causing a separation in the trabecular structures connecting the decidua serotna, and decidua vera to the uterine musculature. Neither is there a settled conviction as to whether the separation of the membranes occurs during or after the expulsion of the child. In an excellent paper on the "Anatomy and Relations of the Uterus," etc., in the *Edinburgh Medical Journal* of 1884, by Dr. Freeland Barbour, and from the investigations of Dr. Engelman and others, it appears conclusive that, when the placenta is well formed, the musculature of the uterus is united to a compact layer of the decidua vera, decidua reflexa, decidua serotina, and the chorion by a spongy or trellis-like arrangement of enlarged uterine glands and connective tissue.

The chorion and the amnion are seldom firmly united, though the union becomes more intimate toward the end of pregnancy, but at term the amnion may sometimes be easily dissected from the placenta. In the separation of the membranes the fundi of the glands with ciliated epithelium remain attached to the uterus and develop into new mucous membrane.

The formation of the placenta begins about the end of the second month, and it increases in size until the end of pregnancy, but in the latter months the union between the placenta and uterus becomes less intimate. Until the formation of the placenta the embryo is surrounded by the amnion, the chorion, the decidua reflexa, decidua vera, and decidua serotina. But the decidua vera and the decidua reflexa do not unite for several months after conception, and the amnion and the chorion are not in direct contact until between the end of the third and the end of the fifth month. It is important to remember this, for the fetus may be expelled in an unbroken sack at any time before the sixth month—possibly in the sixth month—the placenta and other membranes being re-

tained. In these cases the amnion has not reached the placenta, or is so loosely attached that it separates easily, the umbilical vessels being torn between the amnion and the placenta without disturbing the integrity of the amniotic sack.

We will divide the subject into the treatment of the third stage in abortions before the beginning of the third month; then the treatment of the third stage in abortions from the end of the second month to the end of the seventh, and finally, the treatment of the third stage in premature labor and in labor at term.

Nature separates and expels the membranes by contraction and retraction, the placenta presenting at the os and coming away edgeways. This fact can be demonstrated in nearly every case of labor by grasping the placenta in the hand as it is forced through the neck of the uterus. It is possible that in fundal implantations of the placenta it may sometimes present by its fetal or amniotic surface with its long diameter in the os; or, pulling on the cord may so invert the placenta as to cause the same abnormality.

Hemorrhage in the third stage of labor at any period of pregnancy is controlled by physiological contraction and retraction, and by the formation of trombi, or fibrinous coagula in the torn ends of the utero-placental vessels, which is favored by contraction of the muscular fasciculi, which surround the vessels and contract their caliber.

In abortion after the eighth week, in premature labor, and in labor, the membranes should be removed, whether separated or adherent, when they are not expelled within twenty to thirty minutes, and they should be removed sooner if we are apprehensive of hemorrhage, retention of the placenta, or of irregular contractions of the uterus. If, in abortion, the woman shows symptoms of exhaustion or syncope, and bleeding continues, the shock in removing the membranes is not greater than that of tamponing the vagina.

In the statistics of Dr. Weir, of Copenhagen, expectation was followed by the reten-

tion of the decidual membranes in 1.78 per cent of cases, while in expression the per cent was 2.3. But in all other respects the results favor the immediate removal. Post-partum hemorrhage occurred in expectation in 5.78 per cent of cases, and in expression the per cent was 2.3. In expectation manual removal of the placenta was necessary in 1.33 per cent of cases, and in expression in .64 per cent. Secondary hemorrhage followed expectation in .77 per cent of cases, and expression in .32 per cent.

Mr. T. M. Watt (Hovingham) in a large experience has seen no cases of post-partum hemorrhage except in patients treated by expectation.

James P. Nevin, of Ballymoney, in over two hundred midwifery cases saw but one case of post-partum hemorrhage: that occurred in a patient where a midwife had allowed the placenta to be retained three hours; the woman died.

Prof. Pajot's statistics show that in sixty-eight cases of retained placenta, which were left to nature, sixty resulted fatally, and in one hundred and two similar cases, where the placenta was removed artificially and timely, only four died, though some of them were in extreme exhaustion from hemorrhage when the operation was done.

So long as a retained placenta is in the uterus or vagina the life of the woman is in jeopardy, and she may at any time be attacked with profuse hemorrhage, septicemia, and pelvic, cellular, or peritoneal inflammation. When she has apparently recovered a placental or fibrinous polypus may form in the uterus, or she may suffer from subinvolution, hyperplasia, etc. Several women in Louisville have died within a few years from septicemia, with pelvic peritoneal and cellular inflammation, or hemorrhage, caused by a retained placenta.

It may be urged that puerperal septicemia is always exogenetic in its origin, but we know that a decomposed retained placenta is a prolific cause of the disease, and that its removal or disinfection is the only rational

treatment. In abortions before the end of the second month, if hemorrhage ceases, no effort should be made to remove the membranes, unless they protrude into the vagina and can be taken away without introducing the fingers or instruments into the uterus.

These little membranes are generally innocuous, and will be separated and expelled without causing dangerous complications. But if pregnancy has continued until a placenta has formed, expectation should not be practiced. If in abortions after the second month the placenta is not expelled in twenty or thirty minutes, it should be removed, unless the woman is threatened with collapse or syncope from hemorrhage, and when, from the absence of arterial pressure, hemorrhage has stopped. We may then wait until she has recovered from shock, or until there is decomposition of the membranes, or a recurrence of hemorrhage.

If the operation is done without delay the os will usually be dilated or dilatable, and a finger or fingers may be easily introduced into the uterus. There is no instrument that can be substituted for the fingers, though it may sometimes be necessary to use other means to dilate the os. Tents should, if possible, be avoided, and if the os can not be dilated with the fingers, Ellinger's dilator, or my modification of Leonard's dilator, or Molesworth's dilator may be used. The operation is seldom difficult, and with the patient anesthenized, any part of, or the entire hand, may be introduced into the vagina, enabling us to examine all the uterine cavity with the fingers, and to remove every part of the placenta and membranes. Hemorrhage will then stop, and there will probably be no other untoward symptom. Of course our hands should be thoroughly disinfected, but this should be done in every case of delivery. In premature labor and in labor at term, the placenta is more easily separated than in the earlier months, and is less frequently retained. I fail to recognize a single fact to justify expectation in the management of the third stage of labor in

the latter months of pregnancy, and while I do not believe it usually necessary to supplement or supplant nature in an effort to remove the membranes immediately after the child is born, I do not think the placenta should be left in the uterus more than twenty to thirty minutes, and it should be removed from the vagina immediately.

The membranes can generally be removed by judicious expression during labor pains, but if this fail we may assist expression by introducing some fingers into the vagina and gently drawing upon the end of the folded placenta. With a reasonable degree of care this treatment would neither cause septice-mia nor invert the uterus, and such accidents could only result from criminal ignorance or carelessness in the physician. Unless uterine inertia follows the birth of the child there is no necessity for attempting expression until the uterus contracts in an effort to expel the placenta. We should then follow the Credé method, being careful to express only during a contraction. But it is always safe treatment to keep a hand over the uterus to see that it does not relax, and to encourage it to contract by kneading, massage, or expression, if it fail to do so otherwise.

Credé reports that he removes the membranes in four and one half minutes after the child is borne with universally gratifying results, and Garrigues has also removed them in from ten to twenty minutes in 400 or 500 cases with excellent results. But it is better to give more time for the membranes to separate and for coagula to form in the mouths of the vessels. A little delay will do no harm, and will be less frequently followed by retention of decidual shreds. If the placenta can not be separated by expression then it should be separated carefully by a hand introduced into the uterus. If the membranes are imprisoned in the uterus by contraction of the circular fibers of its lower segment or in its entirety, the neck should be dilated with the fingers, and the placenta separated and removed. We should always

have a hypodermic syringe charged with ergot for any emergency, but I do not believe that ergot should be given until the membranes are expelled.

DISCUSSION.

Dr. Fuller, of Maine, after an experience of thirty-eight years, was in favor of prompt placental delivery, and congratulated the author of the paper upon his method of managing the secundines, and hoped that he would continue in his opposition to expectation. He is usually able to express the placenta in cases of labor at term within five minutes after the expulsion of the child.

In abortions the membranes can not be gotten away so readily, but they should be removed as soon as possible.

Dr. Willis P. King, of Sedalia, Missouri, had seen 719 cases of labor at term, and an unusually large number of abortions. He removed the placenta promptly both in labor and in abortion; at term by Credé's method of expression, and in abortion, if the os is contracted, he practiced rapid dilatation with the finger or steel dilators. When the finger, hand, or instruments were introduced into the uterus, and in lacerations of the genital tract, he used hot intra-uterine injections of a solution of corrosive sublimate (1:4000). He had not seen a case of septic infection for several years.

Dr. C. R. Reed, of Middleport, Ohio, believed in immediate delivery of the placenta. In nineteen cases out of twenty he was able to deliver the placenta by Credé's method and traction within five minutes after the expulsion of the child.

Dr. W. W. Potter, of Buffalo, New York, said that the terms uterine massage and Credé's method were sometimes employed as synonyms. Suprapubic pressure was not Credé's method. Credé, in 1853, said that four fingers must be forced behind the *corpus uteri*, the thumb over the anterior wall, and the placenta must be expressed just as the stone of a cherry is pinched out. He did not believe in traction on the cord, but when the traction is slight no harm usually results.

He called attention to numerous sequelæ of abortion, and to the importance of effecting early evacuation of the *cavum uteri*.

Dr. John Morris, of Baltimore, advised the early removal of the placenta. He never allowed the placenta to remain longer than twenty minutes after the birth of the child. He distinguished between abortions the result of natural processes, and those induced by medicines and instruments. In induced abortions, it is necessary to practice rigid antisepsis, and the prognosis is less favorable. In so-called "natural" abortion antiseptics are seldom required, and intra-uterine irrigation is certainly not indicated. He never gave ergot before the uterine cavity was emptied except in cases of "bleeders."

Dr. French, of Minneapolis, desired to enter a protest against the indiscriminate use of intra-uterine irrigation. He had recently observed a fatal termination of a case in which the uterine cavity had been irrigated. He now swabs out the *cavum uteri* when indicated with a mixture of iodoform, carbolic acid, and glycerine. He had seen bad results follow vaginal irrigation with a corrosive sublimate solution, 1:2000. Bichloride of mercury should be employed with extreme caution—if at all.

ARRESTING THE
POST-PARTUM
FLOOD.

BY J. H. O'REILLY,
M. D.
LOUISVILLE.

One autumn evening, about five years ago, I was summoned to the bedside of a woman in parturition. It was her third confinement. After my arrival, the successive stages dragged along with tiresome monotony up to the moment of placental expulsion, following which there suddenly developed manifestations of awakening character. These were inertia of the uterus and post-partum hemorrhage. The patient had before suffered from similar accidents; they were, it appeared, her parturient idiosyncrasies.

Playfair says: "There are some women who really merit the appellation of 'Flood-

ers,' which has been applied to them, and who, do what they may, have the most extraordinary tendency to hemorrhage after delivery."

My lady was undoubtedly a "Flooder," and on that occasion, despite most varied and energetic interference, lost a quantity of blood which superlatives fail to exaggerate.

At length syncope promoted the formation of thromboses and the bleeding stopped. Very timely, indeed, was this latter occurrence. There in the flickering light, 'midst dumb-stricken attendants, the woman, pale, pulseless, and exsanguinated, lay like a corpse upon the crimson stained bed. 'Twas a ghastly, pitiable spectacle.

A short time subsequently—good intentions forgotten—this same subject was again in labor. Dr. Pelle attended. Hemorrhage occurred as usual, and the physician early summoned for consultation and assistance Dr. McDonough and Prof. Turner Anderson. The genius of these gentlemen proved the short comings of many resources, in attempting to staunch the terrific blood waste. Not until death grew painfully imminent did its stoppage reward their combined endeavors.

Two years later, in November of 1885, the female, again in jeopardy, requested my professional services. Almost reluctantly I went; filled with uneasiness and depressed by portentous forebodings.

My former experience had established the inadequacy of numerous anti-post-partum hemorrhagics, and the coming emergency demanded therefore most attentive and elaborate consideration.

Hypodermic injections of ergotine and morphia; manual compression, and kneading of the womb during its evacuation, with cautious removal of placenta by the Credé method, constituted features of the adopted prophylaxis. Intra-uterine injection of hot water was decided upon as the remedy par excellence, should failure of the foregoing necessitate recourse to other procedures.

I remembered this uterus as one of those which Ferguson describes flapping "about

the hand like a wet towel" in the time of flooding; and, provision for supporting its flaccid walls and permitting more widespread contact with the fluid injected, occurred to me as an urgent desideratum.

Accordingly the pipe of a Davidson's syringe was enveloped securely in sponge of medium texture, and four or five inches in diameter. Armed with this contrivance and a copious supply of water I determined in the event of such an emergency to give measure for measure to the sanguineous flood. And the flood came, my preventive measures notwithstanding. No sooner had it commenced, however, than, pressing the sponge firmly with closed fingers, the right hand was introduced to the fundus of the womb. The left continued kneading externally.

Meanwhile an assistant looked after the supply of water. The effect observed to follow realized every expectation. Support was furnished to the limple walls of the uterus, and the fluid applied itself simultaneously over the whole inner aspect of that viscus.

There was no perceptible pulsation of the fluid endangering the permanency of clots in the sinuses. When coagula formed in the uterine cavity their removal was accomplished, without withdrawal of the hand, by the downward gush of water attending sudden compression of the sponge. Soon, responding to the stimulus of the water, the contractile fibers forced hand and contents back into the outer world. Much shock and loss of blood were evidently forestalled, and the woman's condition was incomparably better than after any of her previous four deliveries.

The sponge-enveloped pipe was displayed at a meeting of the Louisville Medical Society, and comments concerning its novelty and the theory of its usefulness were altogether favorable.

Personally, I believe the idea its construction embodies to be accordant with correct philosophy and regard its employment a meritorious innovation in the treatment of post-partum hemorrhage.

HYDROCEPHALUS OBSTRUCTING LABOR.

BY W. H. BOLLING,
M. D.

*Professor of Obstetrics and
Diseases of Women, in
the Hospital College
of Medicine,
Louisville.*

This complication to labor is rare, occurring but once in 3,000 confinements; when it does happen, there is danger of uterine rupture. Of the seventy-four cases collated by Dr. Thomas Keith,

there were sixteen instances of rupture of the womb. Of the five cases reported by Dr. Robert Lee, all the mothers perished, either from the results of rupture or inflammation. The inference to be drawn from this rate of maternal mortality is to avoid delay in delivery.

On January 22, 1881, I was called to Caveria, in this State, to meet Dr. Thomas Garvin, in a case of labor of three days' duration. I found the head arrested above the brim of the pelvis, the sutures and fontanelles widely dilated, and a distinct sense of fluctuation within the cranium; a puncture was followed by an exit of about three pints of fluid, the head at once collapsed, and was soon born; the child was dead; its mother made a good recovery.

On July 31, 1885, Dr. Scheffer, of this city, called me to see a case of breech presentation, in which hydrocephalus was the cause of the delay. The child was a large one, and the woman a primipara, causing me great difficulty in reaching the head, but finally by traction on the body the distended cranium elongated so as to permit easy decapitation. After a puncture was made into the crown of the head a profuse outpour of water followed, and delivery was completed. This lady also made a perfect recovery.

It seems unfortunate that a large number of our busiest practitioners commend the use of Thudichum's Nasal Douche for the relief of all sorts of diseases and injuries of the nasal passages, not to mention the innumerable list of sufferers from nasal obstruction on one side due to natural deformities of the septum.

PATHOLOGY AND HYGIENE.

A TEST FOR
POTABLE
WATERS.BY JOHN A. TANNER,
M. D.,*Professor of Medical Chem-
istry and Toxicology in
the Hospital College of
Medicine, Louisville;
Scientist to the Poly-
technic Society of
Kentucky.*

The vital question in many of our large communities is the absolute necessity for a free and pure supply of drinking water, and in these communities the sanitarian and the authorities are aroused to the importance of

the subject, and are dealing with it accordingly. In towns and thickly settled neighborhoods, the intelligent practitioner who is alive to the dangers arising from impure water is hampered by the absence of concerted action, and often the want of funds necessary to have thorough examinations made of the water supply, and, unfortunately, there are but few general practitioners who possess the chemical skill necessary to conduct such examinations, and even if they are so skilled a press of duties prevent them from doing so.

The recognized processes in use are tedious and unsatisfactory, while the many ready methods given are wholly unreliable; so if any simple method can be put into the hands of the physician by which he can intelligently pass upon a water as to its wholesomeness, it would prove of much benefit to hygienic medicine. From a review of the results obtained by the investigation carried out by the National Board of Health upon the chemical methods in use for the determination of organic matter in potable water, connected with the experience gained by me as one of the analysts engaged in that investigation, and from numerous examinations of water since then, I venture the following simple tests, which, when used in connection with the history of the water, will give information as valuable for hygienic guidance as the more thorough and complicated chemical examinations. The conjoined use of the tests for *chlorine* and *nitrous acid* is the proposed method.

To examine for chlorine the well-known method depending upon the behavior of chlorine upon silver in the presence of the chromate of potassium is used. For a mere qualitative test, the nitrate of silver solution need not be carefully made as to strength, the amount of chlorine being judged of simply by the cloudiness produced in the water when the silver solution is added. But as the quantitative examination is simple, it is better to use it, carrying out the process as detailed in "Wanklyn's Water Analysis;" in short as follows:

Dissolve 2.395 grammes of pure nitrate of silver in 500 c. c. of pure distilled water, the solution to be kept in a bottle of dark glass with a glass stopper. Make a small amount of a saturated solution of the chromate of potassium. Measure out 70 c. c. of the water to be examined in a carefully cleaned white porcelain dish, and then add sufficient of the chromate solution to color the water distinctly yellow. From a 10 c. c. pipette graduated to tenths add to the specimen thus prepared the standard solution of silver nitrate, drop by drop; when the silver solution touches the water a red color appears, which disappears on stirring the water. The silver solution is added till the red color becomes permanent, and just as soon as this occurs the amount of silver solution added is determined by carefully reading the graduated pipette. Each cubic centimeter of the solution added represents one grain of chlorine to the gallon of water. The solutions and water should be neutral.

The qualitative test for the nitrites will prove sufficient, and is conducted as described below using the solutions named:

1. Dissolve one gramme of the hydrochlorate of naphthylamine in 100 c. c. of distilled water, filtering if necessary.

2. Make a solution of sulphanilic acid, using one gramme to 100 c. c. of distilled water.

3. A small quantity of pure hydrochloric acid will complete the list of reagents.

(The chemicals for this test can be obtained from any of the Eastern dealers in chemicals.)

Take 100 c. c. of the water and place it in a clean stand tube, add first several drops of the hydrochloric acid, then 2 c. c. of the sulphanilic acid solution, and then 2 c. c. of the solution of hydrochlorate of naphthylamine. The water is now stirred with a clean glass rod, when the tube is covered with a piece of glass and placed aside for twenty minutes. If nitrites are present in abundance, a rose-red color appears immediately, increasing rapidly in depth, while if the color but faintly shows at the end of twenty minutes, there is only a trace of nitrites present, and if no color develops by the expiration of the time, the water may be considered free from nitrites. It is claimed that this test will detect one part of nitrites in 1,000,000,000 parts of water. While engaged upon the Board of Health investigation I frequently pushed the test to one part in 500,000,000.

In the application of the two tests, the history of the water must be carefully looked into, and used in conjunction with the results in coming to a conclusion.

It is generally admitted that excess of chlorine in water is fair evidence of pollution from sewerage or animal filth, and hence, when a specimen is found to contain as much as five grains of chlorine to the gallon of water, the limit has been reached. While this is not sufficient of itself to condemn the water, the history may then come in to explain the presence of such an amount. If the test for chlorine and the history are not sufficient to give the character of the water, then use the nitrite test, and if the nitrites are found to be present, sufficient data is at hand to render the water highly suspicious, especially if the nitrites are abundant. If chlorine is not present in more than the average amount (of from one to three grains per gallon) and the nitrites are absent, then as far as chemical tests are concerned the water is potable. The pres-

ence of nitrites alone in abundance is always highly suspicious.

As a basis for these deductions the following quotations will be added, quoting first from the report made by Dr. J. W. Mallet, who had charge of the Board of Health investigation:

“It is not possible to decide absolutely upon the wholesomeness or unwholesomeness of a drinking water by the mere use of any of the processes examined for the estimation of organic matter or its constituents.”

“With the facts of the investigation before me, I am inclined to attach special and very great importance to a careful determination of the nitrites and nitrates in water to be used for drinking.”

In his remarks upon the tabular statement of the nitrates and nitrites as found in the great number of specimens of water examined, Dr. Mallet says: “Here we find a very obvious connection between the results of chemical examination and the known sanitary character of the several waters, the salts of nitrous acid and nitric acid being either absent or present in but trifling amount in the water of class I, believed to be wholesome; almost universally present, and in many cases in large quantities, in the pernicious waters of class II, and very variable as to presence and amount in the waters grouped together under the doubtful head of class III. No aspect in which I have compared together the good and bad natural waters has afforded so definite a result as this.”

“Looking at the results from the natural classes of I and II, and bearing in mind the conclusions reached by Müller, Schloesing, and Muntz, Storer and others, as to the process of nitrification being due to the presence of an organized ferment or ferments of bacterial character, the idea suggests itself whether the noxious character of waters containing largely of nitrates and nitrites—themselves presumed to be harmless—and but very little organic matter—which ought

to be present, of some sort, to support the 'previous contamination' view—*may not be in reality due to the presence of a special nitrifying ferment, itself to be classed among the lower organisms capable of propagating disease.*"

Dr. Parkes in his standard work on hygiene says, Nitrous acid indicates the presence of organic matter undergoing change. Nitrous acid is a much more important substance than nitric acid as indicating present danger, and a very small amount of it is sufficient to remove a water into the suspicious class. It is rare to find any of the higher forms of life in a water rich in nitrites, although *bacteria* may be found. Pure water ought to be quite free from nitrites.

In giving these tests it is not claimed that a water can invariably be passed upon as pure or impure, but it is claimed that it will in the majority of cases give as valuable information for hygienic purposes as either of the more complicated methods when used alone.

SUCH has been the rapid growth of scientific inquiry and experiment in etiology, pathology, and therapeutics, that we must at once have an entirely new set of text-books.

In pathology, and in every branch of practical medicine and surgery, the connecting link so long supposed to establish community of origin between chronic bronchorhea, tuberculosis, and several forms of pulmonitis in the subjects of the so-called scrofulous diathesis, has been broken. The long dreaded facial likeness between the young man and his paternal uncle who died of supposed pulmonary tuberculosis, has ceased to possess serious interest to the pathologist, who is now able to demonstrate the extreme rarity of inherited tuberculosis, as compared to the acquired forms of this now well-understood contagious infection.

Those who possess the greatest excess of lymph are especially liable to succumb to tubercle.

BOOKS AND PERIODICALS.

TRANSACTIONS OF THE NEW YORK ACADEMY OF MEDICINE. INSTITUTED, 1847. VOLUME IV. PRINTED FOR THE ACADEMY, 1886. PP. 325.

This is a very handsome volume, neatly printed on cream-tinted paper. A page is devoted to naming the officers of the Academy for 1886. The committees occupy another page, while the list of presidents from 1847 to 1885, inclusive, is named upon another page. Strangely enough in this list Jno. W. Francis and Valentine Mott are the only gentlemen whose names are recorded twice in the list of twenty-one presidents. Out of the nineteen persons named but five are living, viz: Jas. Anderson, 1861; Alfred C. Post, 1867; Samuel S. Purple, 1875; Fordyce Barker, 1879, and the present incumbent, Abraham Jacobi.

The first paper appears in the nature of an abstract of an essay read at the meeting March 2d, 1882, entitled "Suggestions in the Treatment of some of the Diseases of Women, by Frederick A. Castle, M. D."

The paper appears to be intended for the use of general practitioners who have frequent occasion to prescribe for women who, between the ages of forty and fifty years, suffer a period from two to four years of certain peculiar disturbances of the nervous system. The author thinks many physicians look upon these derangements as evidences merely of indigestion. Dr. Castle thinks it quite remarkable of all the systematic writers on the diseases peculiar to females none, except Lawson Tait and Robt. Barnes, have dignified the neurotic disturbances incident to the menopause with a notice in their works. He considers the best account of the neurotic phenomena incident to this period may be found in the writings of Mr. Sidney Ringer, from whom he makes extended quotations. Dr. Castle, like Dr. Barnes, believes in the pretty constant use of bromides; which he does not hesitate to give in doses liable to interfere

with nutrition. He has not been encouraged by the nitrite of amyl, while he finds in arsenic an efficient remedy in those cases attended by sensations of sudden change of temperature, epigastric pains, and sense of suffocation, profuse perspiration, and general muscular disturbances, palpitation, etc. Dr. Castle knows of but two or three other practitioners beside himself who employ arsenic in this class of diseases. Giving attention to the unfortunate occurrence of attachments brought about by inflammatory adhesions of the walls of the retroverted uterus to the rectum, Dr. Castle proceeds to describe an operation by which, with the aid of certain instrumental devices, he has been able greatly to modify the sufferings of this class of patients.

The next paper is one which has been widely published, from the pen of Dr. F. H. Bosworth, on Growths in the Nasal Passages; the most common of this class he denominates adenoid, and locates them in the vault of the pharynx.

It is unfortunate Dr. Bosworth should state the so-called adenoid vegetations of the vault of the pharynx are in any manner identical with the superior lobe of the tonsil, otherwise known as Luschka's tonsil. It is likewise unfortunate that he should announce the presence of *lymph* follicles in the convulsions of even the abnormal tonsil. It is equally unfortunate to call the tonsil, either in its superior lobe or elsewhere, a type of adenoid tissue, which, if it means any thing, means resembling the tissue of the gland; the tonsils are, in fact, lymphatic glands themselves, the convoluted or fissured surface of the tonsil affording merely a more wide expanse of surface membrane, and in this surface membrane are the mucous follicles, but no lymph follicles.

Dr. Heitzman's description of an enlarged portion of Luschka's tonsil will not answer for the so-called adenoid growths in the vault of the pharynx, except, perhaps, for comparison by contrast. We can not avoid the conclusion Dr. Bosworth has

been misled in his study of the pathology of the formations named. There can be no doubt of the identity of the so-called adenoid growths in the vault of the pharynx and those found in the retro tarsal conjunctiva. In the beginning of their development they are in all respects typical forms of the trachomatous bodies, so frequently observed in the conjunctiva as well as in the nasal and pharyngeal membranes in the so-called miasmatic districts. Dr. Marston concluded that trachoma of the conjunctiva afforded a delicate test of the malarious constitution in the locality inhabited by the victims of this form of disease. Some valuable suggestions as to co-existing phenomena, and the best methods of treatment are to be found in this paper, a careful perusal of which can not fail to interest the general practitioner.

A paper on Eczema, its pathology and principles of treatment, by Edward Burnett Bronson, read to the Academy, January 18, 1883, is an instructive dissertation.

A paper by Dr. Isaac E. Taylor, on an interesting experience in obstetrical practice has for its title five lines of solid type. However interesting the paper may be, and there can be little doubt of its scientific importance, five head-lines set up in solid type are more than we can afford to undertake to study out. It is a misfortune that some of the best writers have the least capacity to write a title to an ordinary essay.

Dr. Gill Wylie writes familiarly of ante flexion of the uterus. Beginning with an outline of the anatomy of the position and surroundings of a healthy uterus, he proceeds next to consider the dynamics of the pelvic cavity, then announces that "ante flexion is prevented by vital muscular connective tissue force." The paper is, no doubt, of value to specialists in gynæcology, but we very much fear the dynamics of the pelvic cavity may prove a stumbling block to the advancement of the general practitioner in this department of medical philosophy.

CORRESPONDENCE AND SOCIETIES.

LOUISVILLE

MEDICAL

SOCIETY.

SESSION OF MAY 13, 1886.

[Reported for PROGRESS.]

President Jno. M. Clemens in the chair:

Dr. S. G. Dabney introduced the subject of syphilitic iritis in a brief paper, in which

he made the following points:

Inflammation of the iris always contracts the pupil, and the very earliest stages limits the motion of the pupillary muscle. The eye is always morbidly sensitive to light; by shutting both eyes and suddenly exposing them to the light, the pupil of the affected eye remains contracted, while that of the unaffected eye will dilate in the shadow contracting the light.

The motility of the pupillary muscle in both eyes is always affected, even though but one eye be inflamed. There is always more or less *constituted* redness of the *ocular* conjunctiva, and it is likely to be mistaken for conjunctivitis by the general practitioner or those unaccustomed to observe the phenomena of *lesions* in the iris. Of course it is important to secure early and wide dilatation of the pupil in all cases, because the inflamed iris, from the very beginning of the most ordinary attack, manifests a tendency to adhere to the anterior capsule of the crystalline lens. This is not peculiar to syphilitic iritis, but may fairly be said to constitute the prime source in all forms of inflammation of the iris, even those of traumatic origin.

In some cases of iritis, nodular elevations are observed upon the surface, or projecting into the area of the pupil; these are by no means common as compared to the frequency with which we observe iritis and similar subjects, and we may fairly conclude there is no sign by which the peculiar nature of the iritis of secondary syphilitic may be determined objectively. True, the nodular elevations projecting into the pupillary area or showing upon the anterior surface of the iris itself may be gummata, and

I have no doubt they are; but as these gummata are not always present—only in tertiary syphilis—in either the inherited forms of syphilis or the early stages of secondary syphilis, I conclude we had better rely upon the history of the patient's general health than upon any local appearances in the iris.

It is a safe rule in practice to begin the use of mercury with the design of securing some of its constitutional effects just as soon as the diagnosis of iritis is made out, and this should be pushed from the first, taking care to keep the pupil well dilated; and in the early stages the patient should certainly be confined to a dark room. Leeches have been employed by some for the relief of pain. The artificial leech still has great popularity in such cases. In my own practice, I have never ventured to use this powerful agent, local blood-letting. Of course quinine and the iodides are important therapeutic agents, where malarial complications exist and in tertiary forms of syphilis.

It is useless to discuss the subject of preference as to form of mercury to be used or the mode of administration. So far, I have given it by the mouth, combined with iodide of potassium, and found this course satisfactory. All will agree, where it is desired at all, that the earlier its effects may be secured the better. I am of the opinion that either hypodermic injection or inunction would be more speedy in its effects than internal administration, but unless the urgency were specially great, other objections to these modes of giving the drug would make them counterbalance their advantages. As to the best *mydriatic*, I presume there can be no question that sulphate of atropia holds the first place; it is certainly safest to depend upon in all cases.

Dr. Morrison Ray said it had been his practice to use mercury by inunction. As to points made by Dr. Dabney, he could endorse them all; he would add emphasis to the use of the sulphate of atropia in the pro-

portion of four grains to the ounce of water, which should be instilled into the eye every ten minutes until the pupil is widely dilated. He felt sure that gummata is vastly more common in the negro race than in the white race. He did not believe in confining the patient to a dark room, but felt that it was far better in all cases of iritis that the eye should be protected by smoked coquilles.

Dr. H. A. Cottell said he had now under treatment a case of secondary syphilis in a person who had taken mercury systematically to the production of ptyalism, and had been kept in that condition for about ten days when suddenly a violent form of iritis appeared. The disease made its appearance in the left eye four days ago, and, in the interval between his visits yesterday and this morning, the right eye had been invaded. It is now a severe case of iritis, affecting both eyes, notwithstanding the fact that the patient has, for over two weeks, been under the influence of mercury. "I relate this because it is new in my experience, and would seem to contradict the statements made by syphilographers and by the gentlemen who have spoken this evening concerning the value of mercury in the treatment of iritis."

Dr. E. R. Palmer thought the case just stated by Dr. Cottell was simply an illustration of the bad effects of mercury when injudiciously administered. He thought if there was any one thing which might be relied upon in the treatment of early syphilis or in secondary syphilis it was mercury, and he was sure that in his own experience, as well as that of all the writers with whom he was familiar, the most emphatic demand for mercury as a medicine was expressed by persons with syphilitic iritis; in fact, it was by the study of the effects of mercury in inflammation of the iris that its principal therapeutic value had been established.

Dr. Dudley S. Reynolds said he had no use for mercury in the treatment of syphilitic iritis. He had some experience in its use in such cases, and had frequently ob-

served the disease in the iris grow worse under the influence of mercury. He referred to a report of four cases in which he was called in consultation to see syphilitic persons, at the time fully under the influence of mercury, seized suddenly with violent iritis. This is such a common occurrence as to convince him mercurialization not only does not exert any valuable therapeutic influence in iritis of syphilitic origin, but the debility which it develops or rather favors may be regarded in itself a predisposing cause to attacks of iritis, a disease most common in persons of impaired nutrition and nervous prostration.

There is no reason for supposing an iritis which occurs in a person known to have had syphilis is due to syphilis. Syphilitic iritis, aside from the gummata, may not therefore be regarded as distinctively specific, yet in all the gummatous forms the diagnosis of constitutional syphilis may be made from the appearance of the iris alone; when gumma therefore appear in the iris they mark the iritis at once as being syphilitic. In his experience the iodide of potassium, or the iodide of sodium (which is preferable in many cases), is vastly more entitled to be regarded as a specific in all forms of iritis than any other drug. True, there are cases in which the sulphate of quinine is found to be necessary, but there are few if any which may not be favorably influenced by the judicious administration of the iodides. He thought the sulphate of atropia an exceedingly dangerous agent to use singly, and felt no small degree of surprise at Dr. Ray's experience in the use of a four-grain-solution every ten minutes. Surely the most desirable thing in all cases of iritis is to secure wide dilatation of the pupil at the earliest possible moment, yet the instillation of a four-grain-solution of sulphate of atropia can not fail to provoke serious constitutional disturbances.

He has seen all the toxic effects follow the second instillation after an interval of one hour. Where the sulphate of atropia is re-

lied upon in iritis it should always be combined with the sulphate of morphia, which seems to modify its effects upon the ciliary system. It is well known that the sulphate of atropia alone provokes dangerous tension, and he has seen it bring on glaucoma fulminans. It is especially dangerous in those forms of iritis which have proceeded from the ciliary body, or which have invaded this portion of the uvea. In his experience hydro-bromate of homatropine is far safer and just as efficient, provided it be used sufficiently often. It may be employed in the proportion of eight grains to the ounce of distilled water every five minutes till the pupil is widely dilated; and subsequently every half hour, or every hour or two, or three or four hours, according to the judgment of the practitioner, without any fear whatever of constitutional effects. He has employed it to suspend the accommodation in children ten years of age, instilling it three or four times at intervals of five minutes, and has never yet observed any constitutional effects from its use. He believes it more effectually relieves the pain than the sulphate of atropia, while its effects are not so persistent as are those of the belladonna alkaloid; it is entitled upon every ground to rank first in the treatment of iritis. The local treatment ought to be emphasized.

The publication on this subject by Mr. Gascoyne, in 1872 or 1873, in which it was shown by reliable statistical evidence that a very large percentage of cases of iritis, from whatever cause, finally recover under local mydriatic treatment alone, should have the universal attention of the profession. It is a valuable contribution to the history of the therapeutics and prognosis of iritis.

Dr. Reynolds concurs with Dr. Ray in reference to the more general prevalence of gummatous iritis in the African races than the Caucasian. He does not think he can be mistaken in his observations upon this point. Though he has no recorded experience, he has been frequently impressed with the idea.

Dr. Allen Kelch wondered that none of the gentlemen had mentioned the muriate of cocaine for the relief of pain as well as tension of the eye. He had not had very large experience, but he knew of its use in several cases in which it had relieved the pain after other mydriatics had failed. Dr. Reynolds replied that he had occasionally employed it in severe iritis, and referred to a publication of his concerning the effects of cocaine in severe cases of kerato-irido-cyclitis. He had seen it relieve the pain of irido-cyclitis in the early stages of acute atrophy *globus*, where, before the use of the drug, it was practically impossible to separate the lids for purposes of examination.

Dr. Dabney had also tried cocaine in iritis, but without effect. Believed its action was too superficial to be usually efficient in relieving so deep-seated a pain.

As regards homatropia, he referred to a case, lately reported in the *Medical Journals*, in which this drug caused acute glaucoma, and thought that the same dangers would attend its use as were incident to sulphate of atropia, while it had the disadvantage of being more transient in its effects.

Dr. Reynolds replied that the case referred to by Dr. Dabney was clearly a case of glaucoma before the homatropia was applied. He had read it attentively and saw no reason for charging the renewed paroxysm of tension to the mydriatic.

THE Faculty of the Hospital College of Medicine banqueted the class on the 16th of June, and held its commencement exercises on the evening of the 17th, graduating a class of nineteen.

THE Kentucky School of Medicine held its commencement on the 22d of June, the graduates numbering sixty-two.

ERRATA.—In the article, "Ligation for Neuralgia" (page 17), where reference is made to the "*middle temporal artery*" read, "*anterior*" instead of "*middle*," and at the close of the article, the percentage printed "*ninety-one*" should read "*forty-one*." This, with a transposition readily recognized, occurred through a miscarriage of the corrected proof.

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY.

DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

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SALUTATORY.

PROGRESS makes its appearance on short

notice and for reasons patent to the reader. Those able representatives of an already distinguished class of contributors who grace its pages afford sufficient warrant of the tone and character of the magazine to remove from the shoulders of the editor all the embarrassing circumstances of writing the customary salutatory. It may be pleasant to many to observe in the list of contributors to this our first number the names of many of the gentlemen who so warmly supported the efforts of the editor on his first attempt at journalism in the establishment of the *Medical Herald*, which, mainly through their encouraging favors, attained a high degree of prosperity. With the assurance of the cordial support of nearly every one of those distinguished gentlemen, the editor of PROGRESS makes his second entrance into the already well-cultivated field of medical journalism under circumstances at once flattering.

With an earnest desire to so conduct the editorial affairs, that the name shall be a fit emblem of the real character of this magazine, the editor hopes to deserve a reasonable share of professional patronage.

It is just now six weeks since our publisher undertook the responsibility of adding one more to the already large number of medical periodicals in the United States. With a large list of unsolicited subscribers, and the substantial advertising patronage of

the best firms in this country, financial success is stamped upon the first issue of PROGRESS.

THE AMERICAN MEDICAL ASSOCIATION.

The late meeting of the American Medical Association at St. Louis more strongly than ever displayed the prevailing sentiment of the medical profession in the United States concerning the approaching meeting of the International Congress.

A great many complaints have been made, however, since that meeting of the action of the Judicial Council to whom all questions of ethics, arising in the course of registration of delegates, and permanent members are, under our rules, referred without discussion. The grounds of complaint in this instance are in some particulars justifiable. The Philadelphia County Society delegations were both ruled out, because no society has a right to send two sets of delegates, and the protest which was filed in the open session of the Association against accepting the report of the Judicial Council was bad tempered and disrespectful in tone to the whole Association; wherefore, it was justly tabled and expunged from the record.

In the case of the delegation from the Mississippi Valley Association the Judicial Council acted without advice, and in a manner seriously prejudicial to the welfare of the Association. This society, originally known as the "Tri-States Medical Society" of Kentucky, Indiana, and Illinois, has never adopted the code of ethics of the American Medical Association, and should not, therefore, have been permitted to send delegates. It required no protest from any one to prevent the registration of the delegates from this organization.

The rules in relation to delegates require that no society which does not adopt the code of ethics of the American Medical Association shall be entitled to send delegates, or to be, in any manner, represented at its annual meetings.

It is the business of the Permanent Secretary of the American Medical Association to obtain an official statement from secretaries of all state, district, and other auxiliary societies, with a full list of members and the names of the delegates appointed to the annual conventions of the American Medical Association; if the secretary of any local medical society should notify the Permanent Secretary of the American Medical Association that the delegates had been appointed, without first giving notice that the society appointing these delegates had adopted the code of ethics of the American Medical Association, there could be no question. If, on the other hand, however, an auxiliary association claiming to adopt the code of ethics of the American Medical Association should send delegates in any irregular manner, and this irregularity were not apparent in any official notice nor upon the face of the credentials, the Registering Clerk would not be justified in delaying the matter. If, on the other hand, any one presented credentials from a society not already identified as an auxiliary association, the credentials should be passed to the Judicial Council at once, who should undertake to determine whether sufficient evidence was in possession of the officers of the Association to warrant the belief that this society had really adopted the code of ethics; otherwise, credentials would be rejected as insufficient, and the holder would not be permitted to take part in the meeting. This is precisely what should have been done, not only with the Mississippi Valley Association's representatives, but with those from other societies which we do not deem it now prudent to mention by name.

WILL our readers please note the division and classification of our subject matter, so as to bring that part in which they may be most interested readily before them. We shall not omit any specialty, nor deal slightly with that modest class, known as general practitioners.

THE remarkable statement accredited to Dr. A. W. Calhoun, of Atlanta, concerning the noxious properties of the muriate of cocaine instilled into the eyes as a local anesthetic in extraction of cataract will, no doubt, prove a genuine surprise to many who have used it for similar purposes, very extensively, and with increasing favor.

The writer of this paragraph has extracted ninety-three cataracts under the use of a solution of cocaine prepared by dissolving two grains of the muriate in a drachm of distilled water. The anesthetic effect has been all that could have been desired; one eye only has been lost, and that occurred in an old gentleman of peculiar temperament, who wounded the eye on the evening of the fifth day after the extraction. Primary union had already taken place, and the eye was absolutely free from irritation. Through sheer curiosity he removed the dressing to find out how much he could see. The eye itched, and he scratched it with the index finger; the nail being long, serrated at the edge and not over-clean, coming into accidental contact with the ocular conjunctiva, created a poisoned wound. The eye becoming painful the old gentleman pressed the end of his finger firmly into the orbit on the nasal side, which, he said, relieved the pain; ophthalmitis ensued and enucleation was necessary. Ten days after this the cataract was extracted from the other eye under the use of cocaine; and to protect the dressing the patient's arms were pinioned at night. He made perfect recovery and returned home twenty-eight days after extraction with sight equal to $\frac{20}{X}$. It is difficult to conceive how cocaine, which is so transient in its effects when locally applied, could in any manner be able to disturb the nutritive processes in tissues to the normal external surfaces of which it has been gently applied in solution.

THE Mitchell District Medical Society of Indiana met June 3, 4, and 5. We have a full report of its proceedings in type.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

AN advertisement in this number of PROGRESS directing physicians to write to Hall & Ruckel, of New York, for samples of tasteless quinine preparations, should not escape their notice.

IN an article by Dr. M. F. Coomes, in the *Medical Herald*, January 1886, the concluding remark makes mention of Mr. McKenna's whisky as the purest and best for medicinal purposes.

MESSRS. QUEEN & Co., 924 Chestnut St., Philadelphia, desire correspondence regarding their stock of new and second-hand microscopes; they send a list of these and other instruments on application.

TAFEL BROS., who are very popular with the profession, advertise in PROGRESS. They furnish outfits for large numbers of students, and will be found by our out-of-town friends prompt, reliable, and satisfactory.

THE Syrupus Roborans, of Messrs. Arthur Peter & Co., a formula of which accompanies their announcement among our advertisements, is a standard preparation, and rapidly becoming a favorite with the profession.

ONE of the sights of Louisville is the block of stores on Market Street styled MAMMOTH, and operated by Messrs. Kleinhans & Simonson. The firm is enterprising and liberal, and their advertisement in this issue will repay perusal.

MR. J. W. FOWLER, of this city, is making some elegant triturates, which must win favor with the profession. He is a reliable and scientific pharmacist, who does no counter prescribing, nor does he handle any doubtful goods. Write him.

HERNSTEIN & PRINCE, of St. Louis, advertise in PROGRESS. They are an enterprising, reputable firm, and we trust will receive sufficient patronage from the friends of PROGRESS to make their announcement a paying one. In writing or calling please mention our magazine.

THE announcement of new discoveries in medical science should be interesting reading to a physician. Look through our advertisements.

THE California Fig Syrup has the indorsement of some twenty of the leading physicians of Louisville, and only needs a fair test to receive like commendation from every practitioner. It is the most pleasantly effective medicine of its nature at the command of a physician. Send for a sample, mentioning PROGRESS.

THE American Accident Insurance Company, who advertise in this issue, are in want of a number of agents through the South and Southwest. It is the only company of the kind South of the Ohio River; is officered by prominent and reliable business men of Louisville, and from present indications will do a very large business.

WE desire to call your attention to the advertisement of Messrs. B. F. Rodgers & Co. This is the only house in Louisville making a specialty of the optical business. Mr. Johnston, the manager of the optical department, is thoroughly posted in all branches of the business, having had twelve years' experience in the largest optical houses in the East.

PROFESSOR C. LEWIS DIEHL has just received from Burroughs, Wellcome & Co., London, a sample of STRAPHAUTHUS, the new drug upon which Professor Fraser reported to the British Medical Association last year, which, it is claimed, resembles digitalis, with the special advantage of greater uniformity of action.

THIS is to certify that I have examined a sample of Essence of Malt, manufactured by

Theo. B. Drexel & Co., and consider it to contain all the nutritious and efficacious principles that play such an important part in the treatment of many diseases.

M. FRANKLIN, M. D.

PHILADELPHIA, Oct. 29, 1885.

OUR readers will do us a very decided favor when they receive an introduction to an advertiser through the pages of PROGRESS by announcing the fact.

NICHOLSON'S LIQUID BREAD.—The Nicholson Liquid Bread stands at the head of malt extracts. In appearance it is a clear, dark, rich, brown-colored liquid, resembling fine syrup in consistency, with a pleasant flavor, and a warm, sweet taste. Chemically, it contains over 20 per cent of digestible extractive and a very small per cent of alcohol. For young mothers, weakly children, sick people, and sufferers from accident, it is a nourishing beverage and an agreeable, wholesome tonic.

THE store of Messrs. Wurach & Scholz would be a decided revelation to those who give much of their time to things of minor importance, and little thought to the purity and wholesomeness of their food. They keep in stock a wonderful assortment of staple goods, and a list of foreign condiments and delicacies found in few places outside of New York City. They have no adulterated goods, and handle nothing whose sole merit is cheapness. Louisville is scarcely alive to the fact that it has an establishment where householders can deal with absolute trust and security. Food adulterations are many, and sadly deleterious in their effects. It pays to know what you buy. We refer our readers to the advertisement of Messrs Wurach & Scholz in this issue.

J. LINDSAY PORTEOUS, M. D., F. R. C. S. M. R. C. P. EP., in the April number of the *Edinburgh Medical Journal*, says: "About eighteen months ago a friend of mine from America told me of the won-

derful effects of a medicine, much used in the States, called BROMIDIA. According to the makers, it is composed of chloral hydrate, 15 gr.; potassium bromide, 15 gr.; extract of *cannabis indica*, $\frac{1}{8}$ gr.; and extract of *hyoscyamus*, $\frac{1}{8}$ gr. I obtained some, and have ordered it regularly for over a year; and have found it excellent in the pain of rheumatism, pneumonia, and cancer; also in the sleeplessness of scarlatina and alcoholism. It has never failed me in procuring sleep, without the disagreeable dreams and after-effects of opium. The dose is 3ss. to 3j. every hour till sleep is procured. I have also found it of much service in cases of tonsilitis, used as a gargle with glycerine and carbolic acid."

DIRECTIONS for using Barry's Chemical Thermometer.—The Thermometer is in working order, and always ready for application when the top part of the small bit of mercury that forms the Index is below the the arrow point. After using it, and in order to bring the Index again below the arrow point and ready for use, take the top part of the stem of the Thermometer (near the 105) between the thumb and the first finger, with the bulb turned downwards, or inclined towards the floor. In this position quietly swing from you (like a pendulum) from the elbow down, leave the wrist hang as loose as possible. Always look at the position of your Index after each swing, until you again see the top part of it below the arrow point and it is again ready for application. If it be found that one or two quiet swings is not sufficient to bring the top part of the Index below the arrow point let your swing be somewhat forcible. By following these directions you will have little or no trouble with your Thermometer.

OUR artistic cover heading was designed by C. C. ROE.

THE "MEN WHO ADVERTISE" HAVE BEEN VERY LIBERAL WITH PROGRESS, AND WE ARE COMPELLED TO HOLD OVER A NUMBER OF ADVERTISEMENTS FROM WANT OF SPACE.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN- TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES- SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF, AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., AUGUST, 1886.

No. 2.

GENERAL MEDICINE.

HOT WATER.

BY

E. B. MONTGOMERY,

M. D.

QUINCY, ILL.

[Read to the Mississippi Valley Medical Associa- tion at Quincy, Illinois, July 14, 1886.]

It would seem as though Sir Walter Scott must have known something of medicine as well as law, when he uttered that bit of sententious philosophy about both

medicine and law, to-wit: "Law's like laudanum; it's much more easy to use it as a quack does than to learn to apply it like a physician." If I premise my remarks by saying that I want to treat of my subject as a physician, I shall not, perhaps, run the risk of getting into the hot water of being called a hydropathist. I thought it might be interesting to call the attention of the society to the literature of the therapeutic application of hot water, my intention being drawn to the subject by some reports made by one of our members.

In reviewing the subject, while we find that the range of its therapeutic action is very wide, we do not regard it in the same light as did the Dr. Sangrado, in *Gil Blas*, of whom it is recorded that, "After the Doctor had ordered frequent and copious bleedings, he added that it was necessary to give the invalid draughts of hot water repeatedly, assuring him that hot water in abundance was the greatest specific against all maladies."

The use of hot water readily divides itself into the external and the internal use of the

remedy, including in the former, of course, the douches used in the various cavities of the body. In speaking of the external use of hot water, the discussion of warm and hot baths is most natural. Mitchell Bruce, in his late work on therapeutics, thus summarizes the action of warm and hot baths:

	Temp.	ACTION.	USES.
Warm.	Fah. 95 to 100	Raises local temp. Stimulates local circulation of glands, increasing discharge of warm secretions and evaporation; soothes nerves and corresponding centres.	Diaphoretic in fever. Diaphoretic in uremia. Anodyne. Anti-spasmodic.
	100 to 106	Same as above but more powerful.	SAME.
Hot.	100 to 106	Attracts blood to part bathed.	Stimulates menstrual flow. Relieves inter. congest., as in catarrh and apoplexy.
" local.	" " "	Attracts blood from dist. parts.	

This is a general and rational scheme of the therapeutic uses of warm and hot baths, but we find them recommended in many difficulties on purely empirical grounds. Dr. Tilt, in his little work on "The Change of Life," recommends the warm bath as a means of obviating the various unpleasant symptoms usually present at that period. He says the bath should be used for an hour at a time once a week, the temperature being 95 degrees. The diaphoretic uses of the warm bath frequently come into play where we wish, as in Bright's disease, to supplement the defective action of the kidneys by increased action of the skin; in febrile affections of children, whether simple or in-

flammatory, as well as in eruptive fevers, more particularly scarlatina.

It has been recommended to keep a patient with severe burns for days in the warm bath. This treatment is said to ease pain, diminish suppuration, promote the healing process and to lessen the contraction of the cicatrix. (Ringer).

Dr. Druitt says that sponging the body with very hot water will diminish the excessive perspiration of phthisis. (Ringer).

Hot water baths of a temperature of 95 degrees are highly recommended in metrorrhagias, especially in those following labor. Prof. Tarnier has made repeated use of them with his patients with decidedly good results.

The London *Lancet* has an article on the use of warm baths in scarlatina, in which the author says that he has pursued this practice for fifteen years and has never lost a patient from the disease. He orders his patient to have warm baths daily, to be kept in from three to five minutes, rapidly dried, wrapped in a blanket and returned to bed. He observes, first, that it brings out the rash; second, that it reduces the temperature; third, that it soothes the patient, promoting rest in nervous cases.

To this experience I can add my own as to the use of warm baths in scarlatina, particularly in two cases beginning with severe convulsions. In both cases warm baths were used four or five times a day for several days with the happiest effects, both cases recovering.

The celebrated Dr. Stokes, of Dublin, used the warm bath in a case of malignant small-pox. The relief of the apparently dying patient was magical. He was kept in the warm bath for seven hours at a time, and from this period his convalescence was steady and progressive.

Carl Braun, the great obstetrician of Vienna, advocates the treatment of puerperal convulsions by immersing the patient in baths of a temperature of 100 degrees Fah. Details of sixteen cases treated in this way

are given, only one death occurring. After the hot bath the patients were immediately wrapped in warm sheets and blankets to promote free diaphoresis.

Winckel, of Dresden, suggests the keeping of prematurely born children in warm water, instead of wrapping them in cotton batting. A French physician strongly recommends hot baths in treatment of apparent death in the newly born.

An eclectic practitioner, who says he never uses quinine in any form, says he makes use of the following treatment for chills and fever: "If called to see the patient before the chill comes on, he orders him to soak the feet in water as hot as can be borne, wipe them dry; then sponge the body in the same way, wipe dry, get into bed, put a jug of hot water at the foot of the bed, over the sheet and under the quilt, and place the feet against the jug. Repeat until profuse perspiration is induced. Then keep quiet until dry. Then sponge off with warm alcohol and water. Repeat the treatment two hours before the time for the next chill to come on. Afterwards give some tonic for a few days."

The hot sitz bath is of use when the menstrual flow is painful or deficient, or when it has been suddenly checked from exposure to cold.

Headache is often relieved by a hot foot-bath, or by sponging the face and temples and neck with hot water.

The spinal hot water bag is used in checking hemorrhage from the nose, lungs, or uterus. In bleeding from nose or lungs, it is placed along the cervical and upper dorsal vertebra. In menorrhagia it is placed along the lower dorsal and lumbar vertebra.

Albert H. Smith recommends the use of the hot water vaginal douche (temperature 110 to 115 degrees) in parturition. He says it hastens dilatation of the os, and expulsion of the child, and is largely used in slow labors in Germany.

The hot water douche is said to be positively curative in blenorragia. The method

of using it is by irrigating the urethra with hot water by means of a bulb-lipped catheter introduced into the canal.

Some eight years ago Dr. Robbins, of Quincy, Illinois, recommended the use of the hot water rectal douche in acute dysentery.

Dr. J. J. Woodward, in the Medical and Surgical history of the war, says that hot water has been used during the inflammatory stage of acute dysentery by Gordon, Reid, and others, and that Dr. J. J. Reid, in the *New York Medical Journal*, vol. xxiv, p. 603, recommends that it should be used every two hours, at a temperature 100 to 110 degrees. He had noticed that vaginal injections of this temperature produced blanching and contraction of the mucous membrane, with consequent diminution of the calibre of the canal, and inferred that a similar effect would be produced in the colon and rectum. He says the hips of the patient are slightly raised by means of a pillow. A basin of water of the requisite temperature is placed in the bed so as to allow the natis to rest on the edge of the vessel. The vaginal nozzle of a Davidson syringe is then introduced into the rectum, and alongside of it the rectal or smaller nozzle. A current of water is thus kept up for ten minutes, the water passing through the vaginal nozzle into the rectum, and returning by a steady stream through the smaller one into the basin. The injections he continues every two hours until the active stage of the disease is passed.

Warm injections into the rectum mitigate the pain of cancer of the intestine or adjacent organs. They soothe the pain of cystitis, prostatitis, abscess of the prostate, and pelvic and abdominal pains generally. Warm water injections are also recommended in some cases of suppression of the urine.

The hot vaginal douche forms an effective method of treating acute and chronic metritis. When used for these troubles it should be as hot as can be borne, not less than a quart at a time, with a Davidson or a fountain syringe.

In surgery the hot water dressing is much used for wounds, contusions, and inflamed parts. Dr. F. Hamilton says of the treatment of lacerated and incised wounds by immersion in hot water, "No treatment hitherto adopted under our observation has been attended with equally favorable results." Langenbeck says, that continuous immersion of the stump in hot water after amputation will avert pyemia.

Rinsing the mouth with water as hot as can be borne will often soothe and sometimes entirely stop the toothache. Hot-water gargles, frequently repeated, are very useful in acute tonsillitis; and hot water douche is often useful in acute conjunctivitis.

Chronic gastritis, of whatever origin, is much benefitted by the patient using large draughts of hot water on rising in the morning, the usual nausea and vomiting of mucous being thus obviated.

Dr. A. L. Ranney, in a paper on the therapeutic effects of the internal administration of hot water in the treatment of nervous diseases, gives the following rules for the use of the remedy: "First, it should be taken in gobletful doses; second, it should be taken hot, from 110 to 150 degrees F.; third, it must be taken an hour and a half before each meal; fourth, the temperature must be increased as fast as the patient can bear it; fifth, it must be continued for six months." He had by this treatment cured two cases of diabetes of neuratic origin. It relieved cases of constipation and congestion of the liver. He had also cured a case of chronic diarrhea with extreme nervous debility; had relieved cases of neuralgia, anemia, and hyperemia of brain and cord. There had been great improvement in two cases of locomotor ataxia, and a perfect cure in three cases of gastralgia. This paper, of which I can not give a full abstract, appeared in the *Medical News*, vol. xlv, p. 464.

In conclusion I would say that hot water, like laudanum, is abused by people self-prescribing, using it in all sorts of cases and conditions without reference to whether it is

indicated or not. But in the use of this agent, as of all other remedies, the true principle is to adapt the remedy to the conditions present. Hence it follows that each case must be taken, and if upon consideration it is found that hot water is likely to be of benefit, use it; if not, use whatever seems more nearly to fulfill the indications.

BLOOD-LETTING.

BY THOS. M. KYLE,
M. D.

MANCHESTER.

[Read to the Mitchell District Medical Society, at Seymour, Ind., June 4, 1886.]

This subject takes us back to the early dawn of medicine, where but few remedies were employed for the cure of disease, and all along the

eventful history of medicine this agent has asserted its claims for the alleviation of disease.

Its use began by the great "father" of medicine, and was continued by the Greeks and was soon adopted by the Arabians. Hollarus in his day says physicians bled in the hand, others in the ankle: preferring to open a vein in the upper extremities as less debilitating than in the lower. Hildanus did not think the quantity should be more than six or eight ounces.

The great English surgeons and physicians were swept along by the current of medical opinion, that blood-letting was the remedy *par excellence*.

Both local and general blood-letting were employed by Hypocrates. Thompson is said to have first employed leeches for the local abstraction of blood. Discovered by accident, observing the leech to adhere to the lips of animals, while drinking water, fill themselves with blood—led to their employment for the local abstraction of blood. The Arabian physicians used both cups and leeches more than general blood-letting.

Cullen in his work, page 170, says, "Nothing is more evident than that blood-letting is the most powerful means of diminishing the activity of the whole body." This distinguished physician lays down nine modifying rules for the employment of venesection in fevers, as follows:

1. Nature of the prevailing epidemic.
2. Nature of the remote cause.
3. Season, climate, where the disease prevails.
4. Degree of phlogistic diathesis present.
5. Period of the disease.
6. Age, vigor, and plethora of the patient.
7. Former disease, habits of blood-letting.
8. Appearance of the blood drawn.
9. Effects of blood-letting already produced.

Those rules formulated one hundred years ago would be difficult to improve. The rapid change of views regarding the etiology of disease must surely affect the great system of therapeutics. When we take a retrospective view of the supposed causes of our ills, may we not ask, are we nearer the satisfactory solution of this great question than we were in the early days of medicine? How many ruined towers erected in celebration of the cause of disease now remain, as we look back and wish that all the past had been erected on micro-organisms—those unseen messengers of disease and death? Years have passed since Koch proclaimed to the world his discovery of a bacillus, the cause of that dread disease, consumption, that carries annually more of the human race to their last resting place than any other disease. We have classified fourteen varieties of the cleft fungi, and like a great family these are sub-divided into many species.

Many of our teachers proclaim that nearly all diseases are due to the presence of micro-organisms.

Now suppose we accept the present theory as the one adopted by the medical profession of the world. And, as our therapeutics must be based upon the cause and physiological conditions found in each disease, if those organisms are the cause of disease, our rational therapeutics should be anti parasitics for the cure or rather the destruction of the cause, and our patients will live and be well. Why burden our pharmacopœa with a long list of agents, vegetable, mineral, and animal?

Prof. Yeo, of King's College, London, in the April number of the *Lancet*, in his opening lecture refers to the short time devoted to the study of the physiological effects of 250 different vegetable, 140 mineral, twenty-five animal drugs and 500 of these compounded.

If I were to give a warning to the profession of America to-day it would be against the belief in a *self-limitation of disease*.

That still, small voice that says my patient will be sick six, eight, ten, or thirty days, and your medicine will not shorten it a day, is disclaiming for medicine any power over disease.

This belief in the self-limitation of disease is so thoroughly recognized, that Prof. Flint as a teacher stands almost alone in his belief that well authenticated cases of pneumonia may be aborted by proper remedies.

Returning to the use of the lancet, I desire to call your attention more especially to its value as a preventative agent. The past year has furnished a greater number of cases of apoplexy than is reported in any previous year. Men apparently well, able to transact business in the great branches of trade fall dead with cerebral hemorrhage.

Our distinguished light in medicine, Prof. Austin Flint, with but a moment's warning adds another to the long list of apoplectic subjects. The pathological condition of the blood-vessel which predisposes the patient to an attack of cerebral hemorrhage, is well-known to all.

The chief circumstances which predispose to cerebral hemorrhage are: first, disease of the blood-vessel; second, increase of the arterial tension; and thirdly, disease of the tissues surrounding the vessel. Now the great object to be accomplished is, to prevent, if possible, the sad occurrence of giving way in the walls of a vessel, pouring its contents into the substance of the brain, and to prevent as far as possible the forcible action of the current of the circulation of the blood on the walls of a hitherto weak vessel.

Atheromatous degeneration may cause cerebral hemorrhage by rendering the walls

of the vessel rigid, so the pulse wave reaches the arteries without being modified by the normal elasticity of their coats. Another cause, and perhaps more general, as it occurs at all ages, is fatty degeneration of the cerebral branches.

The greatest danger is vascular tension; whatever causes an undue amount of pressure increases the danger of apoplexy. Previous to any trouble, our treatment is prophylactic. Doubtless the opposition to the lancet has done much to prejudice the profession against its use, while the laity has imbibed some of the prejudice. But I feel sure that there is no better remedy to prevent the attacks of cerebral hemorrhage than that found in the judicious use of the lancet. Acute attacks of pleurisy yield to the lancet as to no other remedy.

Two years ago this spring I was called to see a young lady, rather weak, with strong tendency to phthisic, who was suddenly attacked with pleuritic inflammation on the left side. Having to drive seven miles, when I reached her she was sitting up in bed, suffering all the agony possible to this disease. She implored me to do something immediately or she would die. I suggested the lancet. She said, any thing. I immediately performed venesection, and as soon as the blood began to flow she began to feel relieved. By the time I had drawn sixteen or eighteen ounces of blood the pain had ceased, to the astonishment of many persons present. Local and constitutional treatment was given and the patient made a good recovery.

The report of a single case that I am now treating will explain all I claim for blood-letting.

R. S. T., aged fifty-five years, height five feet eight inches, weight 210 pounds, large plethoric, in the month of —, 1885, while sitting in a store made an effort to rise, but on rising was blind and was prevented from falling by friends catching him; could not speak. He was removed to his home, a square distant, where I saw him one and one half hours afterward, and noted the following

symptoms: Pulse weak and sluggish; he had considerable trouble in speaking, and would repeat the same word over and over; both lower extremities numb, with slight paralysis of the right arm. After the first day and for some time he complained of headache, with neuralgic pains running down over his shoulders and along the intercostal spaces of the left side. His treatment consisted of perfect quiet. Saline laxative and bromide salts, interchanged with iod. pot. and acetate potash. Several months passed before he had completely recovered all his sensations. I have bled him in the last eighteen months four times, removing at least sixteen to twenty ounces of blood at each sitting. He feels perfectly recovered, and for some time after each operation the beneficial effects of the loss of blood were marked. It has been my sad fate to lose several persons with cerebral hemorrhage. If I had employed venesection I feel the results might have been different.

I do not feel like dismissing this subject without referring to the benefits of blood-letting in the following case:

Mrs. A., aged thirty-eight years, mother of four children, a subject of epilepsy at each menstrual period, falling forward on her face. She bears the scars of many injuries on her forehead and face, sustained while suffering from attacks of epilepsy. She is perfectly free from those attacks while *enicient*. Supposing the trouble to be reflex, as the uterine congestion comes on predisposes her to the return of epileptic seizures, I determined to try the effect of blood-letting in this case. She has been bled the day before the return of her menstrual flow, with the satisfaction of seeing her pass through the catamenial flow without any trouble. While I would not present this single case as sufficient to prove the value of venesection in those cases, yet I call the attention of the profession to this agent, and ask them to go and do likewise and test its value.

In conclusion I would recommend blood-letting, first, in congestive diseases; second,

in acute pleurisy, to be employed not later than twenty-four hours after the attack; third, in all cases of threatened cerebral hemorrhage.

PNEUMONIA.	The idea of letting pneumonia take an undisturbed course, because it generally shows the character of self-limitation, is absurd. It is an imperative duty no practitioner can escape to employ those drugs known to modify favorably the pulmonary lesion, and such complications as are observed to arise in its course. The absent chloride from the urine should suggest at once some abnormal state of the renal organs, and this should call forth such attention as the pathological state of those organs would indicate independently of the pulmonary disease.
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It is an error to suppose the absent chlorides afford diagnostic evidence of pneumonia, or that the pulmonary lesion in such cases is the cause of the renal disturbance. The truth is the renal affection is separate and merely co-incident with pneumonia. The same cause being able to affect different organs, as tuberculosis develops inflammation and fever, with colliquative sweats, so the *micrococci pneumoniae* generally disturb other organs as well as the lungs. The manner of introducing these determines the locality of the lesion. Most all the infectious diseases show severe local lesions at the point of inoculation, notably syphilis and tubercle.

CRUDELI'S BACILLI.	Lemon juice often proves a valuable adjunct in the treatment of intermittent fever. This fact is established in observing the action of the lemon juice on the growth of the bacilli in the culture tube. Citric acid acts more powerfully in the culture tube, and if sufficiently tried might prove equally so in the malarial fevers. All the science we have was established by experiment, and we should not avoid experimental methods in our therapeutics.
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GENERAL SURGERY.

A RAPID METHOD
IN FRACTURES.BY EDWARD VON DON-
HOFF, M. S., M. D.[A Clinical and Statistical
Contribution, read to
the Kentucky State
Medical Society,
at Winchester,
June, 1886.]

GENTLEMEN: Nearly eight years ago I presented to the Medico-Chirurgical Society of Louisville a paper upon the subject of "Fractures," the more salient purport of which was to direct

attention to certain rapid successes attainable in the management of such injuries of the elbow-joint; and, in this connection, pointed out the propriety of early abandoning the maintenance of fixed dressings in fractures generally. Since then I have offered two or three additional writings on this subject, one of which was first published in the *Louisville Medical News*, and thence copied by an Atlanta (Ga.) and a Canadian journal.

My purpose in bringing the matter before this body is to elicit an expression of experience with the method, the principle rules of which I beg leave to briefly describe again and to add a list of illustrative cases, selected from notes of the practice of professional friends and my own:

First. Strips of sole-leather or gutta-percha (tin will answer also) of suitable breadth and length being at hand, these are immersed in hot water and adjusted by means of a roller to the site of the fracture, previously reduced and properly swathed in cotton-wool; the latter should be secured in position by a few turns about it with sewing-thread. [Anesthesia is a *sine qua non* to the proper manipulation and reduction of fractures.]

Second. If no suggestive incident intervene—such as shortening, angularity, or great uneasiness and pain—the *first* dressing in cases of fracture of the shaft of long bones should not be removed until the tenth day, but should never be permitted to remain longer than the sixth day in similar injuries of joints.

Third. On the fourteenth day, *baring*

cases in which untoward diathetic or local influences have been demonstrated to exist, it will be found that the fragments are fixed and that the dressing may be dispensed with altogether, except in fracture involving joints; in these the splints, properly stitched together, should be readjusted on going to bed, in order that the unconscious and possibly violent movements of the patient may not prove disastrous during the ensuing week.

Fourth. Gentle, passive motion of fractured joints should be begun *at least as early as the sixth day after the first dressing*, and practiced every second day thereafter until the fourteenth, increasing the degree of motion as may be suggested by the judgment of the surgeon. After this date, the matter of moving the limb may be relegated to the inclination of the patient, unless he be too timid, when he may safely be encouraged to handle light objects and practice normal motions of the limb.

Fifth. The average duration of treatment need not exceed twenty-eight days under ordinary circumstances.

The above rules of practice have proven equally reliable in the treatment of compound fractures produced in osteotomies, done for the correction of deformities, near the ends or in the continuity of long bones.

Sixth. The posture of the limb should be that best adapted to muscular equipoise—straight or in an obtuse angle.

In concluding this preface to the introduction of case reports, I beg to be permitted to quote a few sentences from my paper of June 20, 1885, vol. xix, page 388, *Louisville Medical News*: "As one looks over the field it would seem as if the very common occurrence of fractures had, contrary to what might be fairly expected, contributed but little, as evidenced by generally indorsed rules of practice, to a proper relationship of advancing practicable knowledge and methods of treatment."
"It is also true that it is almost if not quite the expected thing that a joint, after fracture

involving it, should become ankylosed, or, at best, be permanently and seriously modified in its usefulness." . . . "An irresistible desire led me to examine, conclusively for my purposes, all cases of fracture, especially of the long bones, which have come under my treatment during the past ten years, with a view to verifying the above data (physiological reparative process in bone), and it has, in turn, induced me to base my treatment on laws thence deduced. My success has been so uniform that I can not but feel congratulated on the temerity exercised in the study of the subject. My list of cases embraces individuals ranging between the ages of four months to eighty-two years."

I am indebted for the following five cases to Dr. Ap Morgan Vance, Louisville, who, after commenting most favorably on his experience with the method here described, selects these typical cases from a much larger number of similarly happy results:

CASE I. Referred by Mr. Coats. Boy, aged nine, sustained a T fracture of condyle right humerus, marked displacement. Dressed with lateral right angle splint after perfect replacement of fragments under anesthetic. Passive motion began third day; repeated every second day thereafter until tenth; then every day until sixteenth, when all dressings were removed. Result—perfect arm, except very slight limitation of flexion.

CASE II. Referred by Dr. Bodine. Man, aged eighty-seven; compound fracture right elbow. T fracture of humerus, greatly displaced; lateral leather splint. Passive motion from ninth day; all dressing removed twenty-first day; almost normal motion and firm union.

CASE III. Referred by Dr. Bodine. Boy, aged thirteen; injury as in case I; all dressing removed fourteenth day. Result—good.

CASE IV. Referred by Dr. Leachman. Man, aged forty-five; intra-capsular fracture of right shoulder; leather cap with right angle splint to arm. Passive motion seventh

day; dressing reduced to sling by fourteenth day. Arm actively used by twenty-first day.

CASE V. Referred by Dr. Bodine. Boy, aged seven years; comminuted fracture of elbow, with great displacement of fragments and dislocation of bones of forearm. Passive motion on third day; dismissed with perfect arm on fourteenth day.

Dr. V. adds: "In fractures in the continuity of long bones, one must be a little more conservative; but the principle of early abandonment of dressing holds good here also. I could go on relating many more cases, but these will suffice."

Dr. J. H. O'Reilly, Louisville, reports the following case: Mr. K., aged fifty-five; intracapsular fracture right femur; dressed, plaster-of-paris, spica; dressing removed tenth day; dismissed twenty-eighth day; shortening one fourth inch.

Dr. Hunt Stucky, Louisville, reports the following: L. R., aged four years; fell off back of chair on the elbow, producing T fracture of the joint; dressed with Levi's metallic splint. Passive motion began fourth day; dressing removed on sixteenth day. Result—perfect.

M. S., aged sixteen years; fall, eleven feet from top of shed; fracture of internal condyle of humerus; olecranon process; dressed with leather splint. Passive motion began seventh day; dressing removed seventeenth. Motion considerable over two thirds of normal; patient not dismissed at this time.

From my own notes of sixty-five cases I select the following:

CASE I. Referred by Dr. J. A. Ochterlony; man, aged forty; fracture and slight displacement of the inner condyle of left femur; dismissed in four weeks.

CASE II. Comminuted fracture of left elbow; boy, aged fifteen; referred by Dr. Mills; dismissed in twenty-eight days.

CASE III. Referred by Dr. S. Manly; man, aged fifty; intra-capsular fracture left femur; dismissed in thirty-five days.

CASE IV. Referred by Dr. Henderson;

lady, aged thirty-seven years; fracture of neck of left humerus, previous deltoid paralysis; dismissed in thirty days.

CASES V, VI, VII, VIII, and IX. Osteotomies femur for correction of deformities after morbus coxarius; dismissed in twenty-one days; each could bear the weight of the body on the operated limb on fourteenth day.

CASES X and XI. Double osteotomies of tibia and fibula; dismissed on fourteenth day.

CASE XII. Boy, aged nine years; comminuted fracture of right elbow, and fracture of shaft of humerus and ulna; exhibited to Medica Chirurgical Society, Louisville, on twelfth day after injury, having at that time both voluntary and passive motion; dismissed in twenty-eight days. This boy was run over the arm by a street-cart loaded with sand. The appearance of the limb strongly suggested amputation.

Many cases of the total number of fractures occurring will require a conservative application of the rules offered above. Such are those complicated by diathesis by laceration of large blood-vessels, or extensive and deep lacerations and contusions of the soft parts. These contra-indicating circumstances are at the finger-tips of every one. But, as has been shown, ordinary sim-

ple or compound fractures, accidental or artificial, do not militate against the practice. All of the evils attendant upon orthodox rules in this connection are perfectly avoided. Anchyloses of elbows, wrists, fingers, ankles, toes, so distressing to surgeon and patient, as ordinarily due simply to long and unnecessary confinement in fixed apparatus, are obliterated (?) from the vista of experience.

The saving of time to patients is a question of minor importance perhaps (?) to the surgeon, but of the greatest moment to the unfortunates; no matter in what social walk they be found, or whether they are adults, necessitated to earn livings, or children requiring vigilance on the part of attendants. The greater or less degree of muscular atrophy incident to long disuse under the "old method" is an unknown factor in the clinical history of the "rapid method;" so that when the patient is finally dismissed in pursuance with the latter course, every muscle of the injured limb will be found to have perfect physiological function.

Appended will be found a tabulation of 102 cases treated by the "rapid method," with perfectly gratifying results, by Drs. Vance, Cartledge, O'Reilly, Stucky, and the author.

102 CASES OF FRACTURE TREATED BY THE RAPID METHOD.

Name of Surgeon.	Patient's Age.	Nature of Fracture.	Dressing.	No. of Cases.	First Dressing Removed, and Passive Motion Begun.	Date of Dismissal.	Degree of Usefulness.
DR. AP MORGAN VANCE.	9	Ext. condyle humerus.	R. angle leather split.	1	Fourth day.	21st day.	Usefulness unimpaired.
	6 to 8	T humerus.	" " "	4	3d to 10th day.	21st and 28th.	Very good in all.
	8	T fracture of H. upper end of ulna, and radius dislocated, neglected for four weeks before reduction of fracture.	R. angle leather with forearm part and stiffened with the board	1	Seventh day.	21st.	Perfect.
	45 & 70	Intra-capsular fracture of humerus.	Cap and right angle leather forearm.	2	Sixth day.	16th day.	No impairment.
	47 & 64	Intra-cap. F. of hip.	Plaster-of-paris and extension of sand bar.	2	Third week.	Fourth week.	Bony union, good use.
	17	Supra-cond. osteotomy	Plaster-of-paris.	1	Third week.	Fourth week.	Perfect.
	3 1/2	Double supra-condyle osteomy.	Plaster.	2	Eleventh day.	25th day.	Perfect.
	9, 15, & 16	Femoral osteotomy below trochanter.	Plaster.	3	Eleventh day.	25th day.	
	30 & 34	Fracture olecranon.	Straight leather.	2	Tenth day.	18th day.	Very good union, good use.
	34 & 50	Fracture into ankle-joint.	Leather and plaster.	2	Tenth day.	Third week.	Use and motion.
				20			

PROGRESS

Name of Surgeon.	Patient's Age.	Nature of Fracture.	Dressing.	No. of Cases.	First Dressing Removed, and Passive Motion Begun.	Date of Dismissal.	Degree of Usefulness.
DR. HUNT STUCKY.	Age not noted.	4 Elbow-joint T fracture.	Levis' elbow splint. Leather splints.	2	Fourth day.	16th day.	Perfect.
		16 Internal condyle humerus olec. proces ulna.		1	Seventh day.	17th day.	$\frac{2}{3}$
		26 Extra capsular right hip Colles fractured.	Plaster paris. Levis splints. Pasteboard splints.	1	Tenth day.	25th day.	Good.
		Fracture both bones, radius and ulna, left forearm lower third and colles of right.		3 1	Fifth day. Sixth day.	13th, 17th, 20th 16th.	Good. Perfect.
				8			
Dr. J. H. O'Reilly.	55	Intra-capsular fract. femur.	Plaster-of-paris.	1	Tenth day.	28th day.	Good—Shortening one fourth inch.
				1			
† DR. A. MORGAN CARTLEDGE.	38	Inter. Condyle humerus.	Leather.	1	Eighth day.	18th day.	Perfect.
	9	Colles.	Palmer pist. splint.	1	Twelfth day.	20th day.	Perfect.
	58	Colles.	Palmer pist. splint.	1	Ninth day.	28th day.	Could meet thumb and index finger. 7 weeks afterward, a good hand remained.
	52	Epi-condyle of H, complicated by dislocation of both bones of forearm latterally.	Leather.	1	Fourth day.	18th day.	Perfect.
	50	Surgical neck of humerus.	Binder's board and shoulder cap.	1	Fifth day.	28th day.	Moderately good—considerable adhesions. Final result (some weeks afterward) perfect arm.
	5	Both bones of forearm.	Wood and pasteboard.	1	Eighth day.	18th day.	Perfect.
	58	Middle of clavicle.	Sayre's dressing.	1		20th day.	Good.
	25	Middle of clavicle.	Sayre's dressing.	1		24th day.	Good.
				8			
EDWARD VON DONHOFF.	4 to 17	Lower extrem. osteotomies. (Comp. fract.)	Leather and wood.	10	Seventh day.	21st day.	Good—Could walk.
	4 to 80	Accidental fracture, 7 comp., lower extremities. *	Plaster, leather, and wood.	22	Tenth day.	28th day.	Good—Could walk.
	7-82	Fracture of inner condyle of femur. (1)	Plaster.	17	Sixth day.	28th day.	Perfect.
		Colles fracture, simple and compound. (6)	Leather.				
		Inner condyle, humerus. (4)	Leather.				
		Outer condyle, humerus. (2)	Leather.				
	5-27	Comminuted fract. ankle. (1)	Leather.	5	Eighth day.	28th day.	Perfect.
		Neck of humerus. (2)	Plaster.				
		T fracture of condyles of humerus, and fracture of ulna. (1)					
		Fracture of external condyle and both bones of forearm. (3)	Leather.				
	8 to 62	Intra-capsular fract. of femur in lower third. (1)		11	Eighth day.	21st day.	Perfect.
		Fractures shaft of radius and ulna.	Leather.				
				65			

* In fractures of the lower or upper extremities, I do not deem it essential to fix both contiguous joints, unless the injury is very near the shoulder, elbow, hip, or knee.

† NOTE.—My observations lead me to conclude the dressing of fractures in the continuity of long bones should finally be removed from upper extremities in fifteen to twenty days, and in twenty to twenty-five days from the lower. This should obtain with adults; with children, the time may be further abridged.

A. MORGAN CARTLEGE.

EYE, EAR, AND THROAT.

THE CAUSE OF REGULAR ASTIGMATISM.

BY ALLEN H. KELCH,
M. D.
LOUISVILLE.

[Read to the Kentucky
State Medical Society,
at Winchester, June
25, 1886.]

As long ago as 1793 Dr. Thomas Young, the great English physician and philosopher, then but nineteen years of age, discovered in his eyes a defect of refraction which rendered him

unable to see slender objects, such as fine lines or small wires, with equal distinctness in both vertical and horizontal positions.

In 1811 the astronomer Royal, Mr. Airy, discovered in his visual organs a similar asymmetry in the focussing power of the refracting media in opposite meridians of the globe.

Whether this was the beginning of our knowledge of the existence of that defect which Dr. Young named astigmatism (without a point) is immaterial so far as the subject to which I wish to ask your attention to-day is concerned.

Delighted to have discovered the existence of a defect which is capable of producing such distress—sometimes disease—even almost wreck of the nervous system in highly sensitive individuals, Dr. Young set himself the task of devising a formula for the construction of lenses to afford relief from the annoyances its existence caused. In due time he hit upon the expedient of cylindrical glasses of positive or negative character, which, when placed before the eye in the same or opposite meridians to that in which the defect occurred, according as a positive or a negative effect was desired, rendered the eyes practically stigmatic. His method then evolved, with perhaps some improvements in minor details, is practiced to the present day.

Whether he was satisfied with this achievement we can but conjecture. Inference would suggest his contentment, since with all that has been written upon the subject from then till now, but little, beyond the

discovery of the defect and the means of its relief, has been evolved by even the most brilliant minds that have given the subject their attention.

The search for the causes of the various diseases and defects which afflict the human family, pushed as it has been with such abundant rewards of success in the last half century, has been, with reference to this abnormality, most sedulously neglected. While other fields have been explored and are now familiar grounds to all students of medicine, this, confessedly abstruse, has had no pioneer. It is, therefore, with a feeling of pleasure I ask the attention of the Kentucky State Medical Society to a consideration of the cause of *regular* astigmatism.

It is not necessary, I am confident, to a clear conception of this subject to be intimately acquainted with the minute anatomy of the eye. It is essential for its perfect comprehension to keep in view and classed together the nature of the transparent media through which the light passes on its journey to the retina, and the relation which these media sustain to each other, and to other parts by which they are surrounded. They are four in number, from before backward, the cornea, aqueous humor, crystalline lens, and vitreous humor.

Considered, coarsely, we may say that the vitreous humor is a highly refracting, gelatinous, transparent semi-fluid, occupying, posteriorly, about four fifths of the capacity of the globe, supported, as well as separated into chambers by a transparent, delicate membrane, by name the hyaloid; and that, being fluid, or nearly so, it can contain neither voluntary nor involuntary muscular fiber, and hence is capable of changes of form *in a passive manner only*.

Separating this posterior four fifths of the globe with its enclosed vitreous humor from the anterior one fifth containing aqueous humor, we have suspended in its capsule a transparent medium of greater density, of firmer consistency, called the crystalline lens: a body supplied with nervous fila-

ments, whose character as to muscular fibres is still an open question.

Dr. Young convinced himself by his investigations that muscular fibre exists within its substance. Others hold the view that it is non-muscular, and that it expands and contracts solely by reason of the force exerted upon the capsule, which contains it, by the ciliary muscle.

Which of these opposing views is correct, or whether neither be, does not concern us in this discussion; it is an admitted proposition that in the changes of form, and therefore refracting power of the crystalline lens, no matter whether active or passive, we have the explanation of that function which enables us to see objects situated at variable distances distinctly, which we call the involuntary accommodation of the eye.

Occupying the anterior one fifth of the capacity of the globe, we find the aqueous humor a fluidlike water, as its name indicates, non-muscular, and therefore *capable of passive changes of form only*.

Lastly, we have composing the anterior coats of the eyeball, and projecting from it, the segment of a smaller globe of transparent tissue called the cornea; not quite circular in shape, inasmuch as its horizontal diameter exceeds its vertical to an extent quite appreciable by the most cursory examination. Minute anatomy teaches us that this medium of refraction is also, although composed of five layers, non-muscular, and therefore *capable of passive changes of form only*.

Considered collectively, then, we see that three of these four refracting media are capable of passive changes of form only; the fourth the crystalline lens, in all probability, can undergo no changes of form, except as it is operated upon by forces outside itself; for if it contained muscular fibres they would certainly, with the present means of investigation, have been discovered. If, then, their form is changed passively (and in their change of form individually or collectively, we can only account for accommodation),

there appears at once the necessity for a consideration of the forces operating to affect them. These forces must be whatever changes the shape of the elastic globe which surrounds them, collectively, or whatever forces can operate upon them individually.

The forces that can operate upon the elastic globe are those exerted by the muscles which are inserted in its sides, not far removed from the junction of the cornea and the sclerotic, and which sweep around the globe to be attached in the region of the optic foramen, and those which serve to keep the lids in contact with the globe, and causes their sweep over its anterior portion in the action of closing.

With reference to the first of these the effect must obviously be small; because the degree of compression from before backward can not be otherwise than nearly counter-balanced by the support afforded by the contracting muscles, as they pass around the globe to find origin at the point from which they act posteriorly.

The force exerted by the pressure of the lids can have but little effect in changing the general configuration of the globe, but, as I shall presently exhibit, a most decided effect to change its local configuration.

These are the forces, and the only forces, that can operate to constantly affect the form of these media by changing the configuration of the globe. Not so, however, with the crystalline lens; supported as it is in a capsule, which may assume any of the various gradations made in converting a lens into an almost globular body, it can but follow in contour the shape of this capsule which contains it. This capsule, held in position by a circular ligament which completely surrounds it, is, we may admit, solely at the mercy of the ciliary muscle on the one hand, or wholly independent of it on the other. Either view, or neither, may be accepted without altering in any manner the conclusions to be reached by this discussion.

It has long been admitted that the faculty of accommodation resides mainly, if not al-

together, in the changes of form, and therefore in the refracting power of the crystalline lens. Whatever changes of form it undergoes, by whatever force produced, it must be admitted have a corresponding effect upon two of the remaining media. Suspended as it is between the aqueous and the vitreous humors, every alteration in form which it undergoes must effect a corresponding change in the form of that much of the aqueous and vitreous humors as lies in contact with the advancing or retreating elastic capsule which contains it.

If then the faculty of accommodation resides in the change of form of the crystalline lens, we are prepared to announce a principle, the truth of which can not be controverted, a truth so evident that it at once assumes its rank as an axiom to those well acquainted with the defect we call *regular astigmatism*, viz: *regular astigmatism*, as we constantly meet it, can not reside in the crystalline lens. Why? Because regular astigmatism is a constant, invariable quantity of defect of refraction, capable of measurement and correction by one unvarying, unchangeable lens; whereas, if it resided in the crystalline lens, it must, and it could not do otherwise, than vary with every varying degree of accommodation exercised. This argument, from what has preceded, is obviously applicable with an equal degree of force to the vitreous and the aqueous humors.

By the process, then, of exclusion, regular astigmatism has no medium in which to exist save the cornea. The cornea, as we have seen, is the segment of a smaller sphere than the sclerotica, and projects from its anterior surface to a degree which permits it to receive a greater degree of the force exercised in keeping the lids in contact with the globe than the posterior or sclerotic portion of the ball. Then, every time the upper lid sweeps down to meet its fellow it must exert a force, no matter how small, to compress the cornea in such a manner as to shorten its vertical and lengthen its horizontal diameter, cor-

respondingly increasing the curvature of this medium in the meridian which indicates the direction in which they act, and decreasing its curvature in the opposite; thus the refracting power of the cornea is increased in the vertical, while decreased in the horizontal meridian.

If this be true, it must follow as a natural consequence that astigmatism, requiring a positive cylinder for its correction, must have that cylinder so placed as to increase the refraction in the horizontal meridian, inasmuch as the horizontal meridian indicates the direction in which the cornea exerts the least refracting power. In order to add to the refraction in this meridian it is therefore necessary to place a positive cylinder in the vertical position.

Does large experience in the correction of optical defects indicate this to be true? It does most assuredly. It shows, in the first place, that the defect which we call astigmatism exists in a *greater or less degree* to an extent that is all but universal; that the *degree* to which it exists is not sufficient in the vast majority of cases to require correction. Donders never corrected a smaller degree than $\frac{1}{48}$, relying upon the effectiveness of the athletic accommodation developed by constant exercise to overcome a slighter degree than this. Experience also shows that astigmatism existing to a degree sufficient to demand correction is nearly always found requiring in the vertical meridian a positive, and in the horizontal a negative cylinder.

In a recorded experience of 512 consecutive cases of astigmatism, occurring in the practice of my friend Dr. Dudley S. Reynolds, who kindly permitted me to copy his notes, I have found that in 443 cases occurring in the right eye there was required for correction, either alone or in combination with a spherical glass, a positive cylinder in the vertical meridian in 340. By a moment's reflection it will be seen that those cases requiring a negative cylinder in the horizontal meridian differ from

the foregoing in degree only, and not in kind, and of these there were thirty-seven, making a total of 377.

In the left eye astigmatism existed in 452 cases, and required the positive cylinder in the vertical position in 337, and the negative, in the horizontal meridian, in thirty-seven, making a total of 374.

Of the 66 cases requiring correction in other meridians in the right eye, twenty-three required correction in meridians approaching within 10° of the vertical, or the horizontal, which cases add their force to this theory, and swell the total number to 400 cases out of 443 in the right eye. In the left eye, those approximating within 10° numbered thirty-two, making the total 406 in the left, out of 452.

This yields, sustaining this theory which I advance, 90 per cent in the right eye, and 89.82 per cent in the left.

Was there ever such harmony existing in discord, if I may be permitted to speak paradoxically, as here becomes apparent from these records which were intended by their author to show nothing but the character of the defect corrected, and to be of use for future reference.

The nature of the refracting media shows that regular astigmatism can exist only in the cornea, and the uniformity with which it here exists, in a single direction conforming exactly to what might be expected to be produced by the pressure of the lids, leads at once to that as the operating force in its causation.

That cases occur requiring a negative cylinder in the vertical meridian is not for one moment overlooked; that they will assume their proper degree of importance in a discussion of this subject is likewise not for an instant doubted; that they will be found on close examination to be explainable in conformity with this theory, or that they will be found to occur nearly always in eyes that are diseased as well as defective, I feel entirely confident.

I therefore leave it for the members of

the Kentucky State Medical Society, and the profession at large, to say whether I have established the two conclusions with which I close this paper :

(a) Regular astigmatism is due to changes of the spherical form of the cornea.

(b) The cornea has its contour altered by the pressure of the eyelids, and in this pressure we find the cause of regular astigmatism.

DRESSING AFTER
EXTRACTION OF
CATERACT.

The use of the bandage after extraction of cataract has long since been abandoned by the writer. Instead

of this useless and sometimes dangerous form of dressing, a little dry absorbent cotton, secured by strips of adhesive plaster drawn from the cheek to the forehead answers a better purpose. The object in such cases is not, as some ignorant people suppose, to press the eyes so firmly into the orbit as to prevent motion during the process of healing, but to keep the lids gently closed without any pressure whatever.

The experience of Dr. Chisolm, of Baltimore, is of a nature similar to that of the writer. Dr. C. uses adhesive plaster applied directly to the closed lids, which, of course must prove annoying to the patient. The absorbent cotton maintains equable temperature, and absorbs any tears or meibomian secretion, thus preventing the necessity for changing the dressing, and exposing the recent wound to the dangers of disturbed opposition, or to infection from the air.

In a discussion on Rachitis Prof. Larabee locates the prime cause of this disease in the alimentary canal, and proposes to prevent it by improved nutrition. He is persuaded much harm has resulted from the promulgation of the idea that phosphorus or any thing else is able to cure the disease. It may be prevented or even arrested in its course, but the deformities of rickets can not be corrected by drugs.

OBSTETRICS AND GYNÆCOLOGY.

THE THIRD STAGE
OF LABOR.

BY JNO. M. HARWOOD

SHELBYVILLE, KY.

[Read to the Kentucky
State Medical Society,
at Winchester, June
26, 1886.]

I desire to take some exceptions to the teachings of most of the textbooks, and advocate what is, I believe, becoming more popular among practitioners in obstetrics,

namely, the immediate or early removal of the placenta instead of waiting an indefinite time for its expulsion by the contractions of the uterus.

I claim and believe that the time usually occupied in tying and cutting the cord and delivering the child to the nurse is sufficient time to wait, and unless there is an unusual amount of hemorrhage I would proceed at once to deliver the placenta in the usual way, viz., by wrapping the cord around one hand and making gentle traction upon it, whilst the two first fingers of the other hand are placed upon the cord at or within the vulva, pressing downward and backward, making thereby a kind of pulley. This procedure will usually extract the placenta, except when there is a morbid retention, in which case it is usually retained by one of the following causes, viz., atony of the uterus, irregular contractions of uterus, or morbid adhesions of placenta. In either case it is time that something is being done to relieve the patient of the "after-birth," until which is accomplished the labor is incomplete, and doctor, patient, and friends are in a state of anxiety. Before, however, making any considerable traction on the cord, I would assure myself the uterus was in a state of contraction by placing my hands upon the abdomen and grasping the uterus firmly, thereby securing the desired contraction necessary to assist in expelling placenta.

If the placenta is morbidly retained by any of the causes named, the correct course to pursue is to introduce the hand, well oiled, and extract it. There is but little hope of gain by waiting, and much may be lost.

In retention from atony of the uterus the hand in the uterus will usually excite the necessary contractions to assist in expelling the placenta, at the same time the uterus should be grasped with the other hand placed upon the abdomen and held firmly, securing it for a time and preventing its relaxing until hemorrhage has ceased and the organ is in a state of firm contraction. In irregular or hourglass contraction, of course there will be more difficulty in introducing the hand and reaching the placenta, but under the use of chloroform administered to complete anesthesia, and by gentle but firm and persistent effort I have never failed to extract it, and I think the sooner it is done the better.

Retention of the placenta from morbid adhesion should be met in the same bold way. If it is safe, certain, and speedy, why wait? Introduce the hand at once, and by grasping the placenta with one and the uterus with the other, placed upon the abdomen, endeavor to encourage contractions of the uterus by pressure and counterpressure, and failing in this insinuate the fingers between the placenta and uterus and proceed to peel it off as rapidly as possible. It may be objected that in morbid adhesion it is sometimes impossible to separate and extract the placenta in whole. Of course sometimes this is the case, but I extract what I can without too much violence to the uterus, and leave the remainder to come away by disintegration.

I will next claim your attention for a few moments to the most dangerous, if not the most interesting stage of labor. It was said by the late Dr. Henry Miller that "*Uterine hemorrhage in the third stage of labor is the great destroyer of parturient women,*" and I believe truthfully said.

As indicated in my remarks upon extraction of the placenta, the indications to be sought for here are contractions of the uterus, *tonic* contractions, such as will close the mouths of the bleeding vessels.

How is this desirable result to be attained? Let us first consider hemorrhage before the

delivery of the placenta; and secondly, hemorrhage after the delivery of the placenta. If the desired contractions do not take place after a few firm grasps with the hands spread over the abdomen previously dipped in cold water, and with a few movements of vigorous friction over the abdomen, I would proceed to introduce my hand and extract the placenta as indicated above. In internal hemorrhage I can offer nothing better than the advice given by the author quoted above, "No time should be lost by trying the milder remedies, because it is discovered by the palor of the patient's face, the feebleness of the pulse, faintness, sickness, large size of the abdomen, etc., she has lost so much blood, and the uterus is so little disposed to contract, that we must use the club of Herculese to kill the lion of Nemæa, or it will kill our patient, and this club is neither more nor less than our hand carried into the uterus to press upon its internal surface, aided by counterpressure from without, and to withdraw the placenta as soon as it is perceived the uterus is contracting."

The same indications are to be met in hemorrhage after the delivery of the placenta as before, and are to be met in much the same way, namely, cold applied to the abdomen, cloths wrung out of ice-water and placed upon the abdomen, pieces of ice placed in the vagina, or, as some prefer of late, *hot* water injected into the womb. But none of these remedies should be relied on too long, but we should resort to the most reliable of all the remedies, the hand introduced into the uterus; this should be our main reliance.

The hot water is a remedy in post-partum hemorrhage with which I have no experience; but I believe from the testimony of those who have tried it that it is worthy of some confidence.

There is a remedy that every one who practices obstetrics ought to have with him, that is cheap, handy, convenient, and from my experience with it in other hemorrhages,

I believe will prove a valuable agent for good in post-partum hemorrhage. This is chloroform two parts to one hundred of water. I have known it effective in hemorrhagia after many of the usual remedies had failed.

I will leave the subject of antiseptics to be discussed by those who have had more experience and more confidence in them than I have in obstetric practice. Suffice it to say, I believe their use should be reserved to the time, or restricted to the cases where septic poison has developed, and the daily washing out of the womb with antiseptics, simply because it has delivered itself of a healthy child and placenta of purely physiological act wholly unwarranted, except it may be during an epidemic or in large lying-in hospitals.

WHEN TO INTER- FERE IN LABOR.

In obstetrical practice there seems to be many divergent opinions as to the proper time for instrumental interference. It is safe to say, however, that the forceps judiciously and skillfully applied can but abbreviate the period of labor, thus sparing the mother from the dangers of prolonged and severe travail, and the child from the dangers of strangulation and death.

It is the opinion of most accoucheurs that the post-partum hemorrhage occurs most frequently and in its most dangerous form, after protracted and exhaustive labors. The question, therefore, of Credé's, or some other method of placental delivery is not to be considered in this connection. The time for manipulative interference by instruments, or in any other way, in all obstetrical cases, should arrive before any plan has been decided upon; and, like questions at law, give the patient the benefit of any doubt. If she has severe post-partum hemorrhage O'Reilly's method, detailed in PROGRESS for July, will be found promptly efficient, and easy of execution. In such cases hemorrhage may be much more easily prevented than arrested. It is in first-born the ounce of prevention is valuable.

PATHOLOGY AND HYGIENE.

HUMAN MILK.

BY

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SEYMOUR, INDIANA.

(Read to the Mitchell District Medical Society at Seymour, Indiana, June 4, 1886.

An Irishman once remarked that "Bread is the staff of life, and whisky life itself." That may be applicable to us when we reach adult life, but

man's life at its beginning depends upon something else, not more substantial probably, but certainly much more necessary. Upon it depends to a very great extent the existence, or non-existence, and the perpetuation of the human race.

By virtue of our early and urgent necessities it is called "Man's Primitive Food."

A careful study of the elements of human milk, and the knowledge gained thereby, is of inestimable value. Not only is there value in knowing these elements as they exist normally, but in being able to perceive deficiencies, and the bearing they have on the health of nursing infants, and the successful treatment of infantile diseases.

I think the profession at large are not fully aware of the importance of looking to the mothers of nursing infants to find the true cause of the child's illness, and right on this line I will preface my following remarks by the statement, if you please, that one half or more of the causes of illness and subsequent emaciation in nursing infants are due to some faulty quality of its food, and on careful consideration I trust you will not consider my statement a rash one.

If we do not make a close and careful diagnosis that the condition of the mother's milk is responsible for the ill-health of the child, for the mother may be apparently the very embodiment of health, we commence dosing the poor little unfortunate.

There are some infantile diseases, it is true, in which the child can with certainty be given credit for its own condition, but I think the rule to examine the mother's milk can with propriety be laid down.

Too often the general term *inanition* is

given as the diagnosis when a puny, emaciated infant is brought to the physician. If I am correct, this term signifies a condition due to the improper or imperfect assimilation of food, referring the cause directly to the child, when a thorough examination of the mother's milk will show the cause to rest with the mother and not with the child.

In the earlier days of our profession where the treatment of diseases was conducted more or less on an empirical basis, diagnosis were made from symptoms alone, the necessity of digging to the root of the trouble and treating its cause not being recognized as it is to-day; and nowhere and in no other class of cases is this necessity shown better than in those of infants at the breast.

Our diagnosis of these cases are necessarily made from subjective symptoms alone, so far as the child is concerned.

The best method for arriving at a clear diagnosis is by the aid of the microscope.

The mother is responsible for the condition of her milk from several causes:

1. By the use of foods which are not nutritious. The *general* condition must be normal; but as regards *solid* foods there is no great difference between the coarse alimentation of women in the lower walks of life and those who live more luxuriously. In fact, it is more frequently the case that the child nursed in the lap of luxury becomes the weaker and punier of the two. "So long as the mother is healthy and well nourished, the milk will take care of itself, and the appetite is the surest guide to the proper variety, quality, and quantity of food." There are exceptions to this as regards acids and fermentable substances; but the differences in women are various. "It is a curious fact, that while the quantity of milk is increased by taking a large amount of simple water the solid constituents are also increased, and the milk retains all of its qualities as a nutritive fluid."

2. Mental emotions exert an influence upon the secretion. A hospital wet-nurse lost her child by pneumonia, because vio-

lently affected with grief, and presented as a consequence an immediate diminution in the quantity of her milk and the quality of its constituents. "Sir Artley Cooper mentions two cases in which the secretion was instantaneously and permanently arrested from terror."

3. The return of the menses usually affects it. "The suckling is often griped or has diarrhea at the nurse's monthly periods." By examination microscopically you will find that the milk is abundant in colostrum-corpuscles.

4. Sexual intercourse during lactation will often have such an influence upon the secretion as to cause the death of the child. A case of this kind came under my observation. This, by the way, is often the cause of a child's illness, and the practitioner is justified in inquiring into the matter.

5. Acute disease will temporarily cause the secretion to dry up. I saw this illustrated in a patient of mine suffering from acute dysentery, during the course of which the secretion of the milk completely ceased, returning again on the recovery of the mother.

All these causes have their effects, deleterious to the infant, and nothing so ably reveals them as the microscope.

The next point to consider is some of the properties and the composition of normal milk, and a few comparisons with cow's milk will assist us.

"Human milk is neither so white nor so opaque as cow's milk, having ordinarily a bluish tinge. It is almost inodorous, of a peculiar soft and sweetish taste—sweeter than cow's milk—and when fresh has a decidedly alkaline reaction," becoming acid a short time afterward.

The specific gravity, though varying, shows an average of 1032. In healthy milk the stratum of cream forms from one fifth to one third of the entire mass of milk.

When we place a drop under the microscope we will notice an immense number of minute globules of great refractive power,

held in suspension in a clear fluid. These are milk globules and consist of margarine, oleine, and fatty matter called butyrine. In human milk these globules are perfectly spherical: in cow's milk often polyhedric.

When the specimen examined is perfectly normal the milk contains nothing but these globules in suspension, and the appearance of any thing else or a diminution in the quantity of the globules at once indicates something abnormal.

There has been considerable discussion in regard to the constitution of the globules, some holding that they are surrounded by an albuminoid membrane, but we will not stop here to discuss that point.

If dilute acetic acid be added to a specimen of milk under the microscope, the globules become deformed and no longer retain their perfectly spherical form, and some show a tendency to run together.

The manner in which these changes are brought about are as follows: Acetic acid has the faculty of coagulating the caseine, which is most important in maintaining the fat in its peculiar condition. The coagulating caseine pressing upon the globules causes them to change form. As acid is not a normal constituent of milk, and artificially can produce these effects outside the gland, it will produce like effects if in the glands, and this is another of the changes which only the microscope will show.

There is another element, which is only a normal constituent of milk for a certain length of time after parturition, and when it continues longer it is with deleterious effects to the child. "It produces evident derangement of the digestive organs, and the infant that habitually nurses it never thrives." It has diarrhea or vomiting, becomes more or less emaciated, and suffers from colicky pains. Sometimes an extreme degree of exhaustion is reached before the cause is suspected, for if the milk is pretty abundant the admixture of colostrum with it can not be detected by the naked eye. "Examined by the microscope the colos-

trum is seen to contain oil globules and a viscid substance, which often assumes an ovoid or globular form, and also exists in irregular masses of considerable size. Imbedded in this are oil globules of very small size, while the free globules of colostrum are larger than those in healthy milk. This viscid substance is known as the colostrum corpuscle.

The human milk is a typical alimentary fluid, and presents in itself the proper proportion and variety of material for the nourishment of the body during the period when the development of the system is going on with its maximum of activity. And there is no time or period in the growth of a human being when a change, either in quantity or quality, more especially the latter, is so keenly or suddenly felt as during the period of nursing.

In conclusion I wish to refer to and give the particulars of a case in which I am confident that, by following just such a plan as I have spoken of, I saved the life of a child whose days were apparently few when I first saw it.

Some months ago I was called to see the child of Mr. P., aged two months. The child was greatly emaciated until its head in comparison with its body seemed almost hydrocephalic. It would lie in its mother's arms with not strength enough seemingly to draw one breath after another, and its cry so feeble that it could scarcely be heard across the room. I at once turned my attention to the mother, whose general appearance was only tolerable, and accompanied by a very red nose. This by the way is not a very good sign even in a tee-totaler. On further examination I found the breasts flabby; the amount of milk sufficient in quantity. I obtained a sample and found on examination microscopically that it was only about one fifth the richness it should have been; the globules were few and small. I ordered an emulsion of cod liver oil and a preparation of iron, bark, and strychnia, and after a week's time made a second ex-

amination, and improvement was wonderful, the milk having come up to about one half normal, with also a perceptible improvement in the child. At the end of the second week I made another examination, and found the milk and child so improved that I dismissed the case with some instructions for the continuance of the treatment, and learned a few weeks afterward that the child was well and hearty, with a great change for the better in the mother.

OFFICES OF
THE PLASMA,
AND
RED CORPUSCLES
OF THE BLOOD.

BY GEORGE L. CURTIS,
M. D.

[Read to the Mitchell District Medical Society,
at Seymour, Ind.,
June, 1886.]

Of the three Anatomical elements of blood, plasma, red corpuscles, and leucocytes, two only have been successfully studied. The third, sometimes known as white corpuscles, is still a mystery. Milne, Edwards, and Kölliker, describe a fourth element called "*granules*," which are now considered accidental fat globules from the chyle, and are not natural elements of the blood.

To-day I wish to speak of the two principal blood elements—plasma and red corpuscles.

The red corpuscles of the blood are circular discs—flattened and hollowed, or dish-ed, at the center, having a specific gravity of 1,088 to 1,105; a diameter from $\frac{1}{3437}$ to $\frac{1}{3600}$ of an inch, and in numbers ranging from five hundred to eight hundred in a drop of blood before a meal, and from sixteen hundred to nineteen hundred in a drop after a meal. They are in constant motion in the plasma, through the arterial capillary, and venous circulation.

They move more rapidly in the arteries and capillaries, and less so in the veins. This variation in rapidity of movement is very discernable when the foot of the living frog is placed under the microscope. Red corpuscles are found every-where in the circulatory system, but never out of it, except following traumatic injury or disease.

What are the functions of these interesting little bodies?

1. It was once supposed that they served the purpose of tissue nourishment, or they were the food carriers, if not the food itself. Some hold this notion now; but it is apparent that they have some other office.

Red corpuscles are not found in the tissues of any dry part of the body, either hard or soft, except following injury or disease. They always confine themselves to the blood-vessels, their natural channels. Hence, whatever office they fill, must be somewhat at a distance from their particular place.

Their rapidity of movement indicates that whatever their function it must be performed nearly or quite instantaneously.

If they are food-carriers or tissue builders, when destroyed or their food-power utilized, the lymphatic vessels whose office is to gather up worn-out tissue, and either eliminate or carry around to nature's will to be remodeled and again utilized, ought to show remains of these discs. But at no time do the lymphatics or their ganglia show any signs of red corpuscles through all of their extensive tract, until within a few lines of the mouth of the great trunk from the mesenteric system, and at the mouth of the vessels coming from the head and neck entering into the veins. Their presence at these places can be readily accounted for by the slight regurgitation from the veins. Up to the present no microscopist has found the remains of red corpuscles in lymph in the lymphatics.

The elements of the plasma are found in the lymph gathered from the worn-out tissues by the lymphatics. This strongly shows that the plasma and not the red corpuscles is the nourishing element of the blood.

2. Is it not possible that red corpuscles have a distinct function wholly separate from nourishment?

I will venture to propose that they are the great electro-magnetico-vital carriers of the system.

While it is the function of plasma to

nourish tissue, and of leucocytes or white corpuscles to do—we know not what, it is the function of red corpuscles to carry the vital power, or to nourish, strengthen, reinforce the life-power of tissue.

No other portion of the blood, nor any other tissue of the body possess elements capable of becoming electro-magnetic. But to a limited extent the red corpuscles do possess the requisites. I do not say that this secret, but powerful vital force is absolutely electrical or magnetic—for of that I do not know—but I will call it that for want of a better name. It may be electrical, or it may be magnetic, another mode of electricity; it may be a purely chemical solving of caloric—I think it is electrical—it is vital, so I call it electro-magnetico-vital power. This mysterious power they discharge in the capillaries by some instantaneous process, and it enters the surrounding tissue building by the plasma, and giving the requisite vital force, or vitality to the parts.

Trace the journey of a troop of red corpuscles. They start from the lungs to the heart, full charged with vital-electro-magnetico power; the heart sends them out to the system, to be employed by contact with the tissues of the capillaries, when they discharge their electro-magnetico-vital power, which enters into the vitalization of the material carried to the parts by the blood plasma, and which by exosmosis passes to the solid tissues, to be built into the system. The devitalized corpuscles are now carried back to the lungs to be again vitalized. There once more these red corpuscles are charged with their force of life, and, since that fact in their bright-red color, in contradistinction from devitalized corpuscles, which have a dark-red color, having become vitalized they are carried back to the heart, and thence sent out on their journey to fulfil their function.

These red corpuscles by frequent vitalization, or continuous electrical action, die out just as the plates of zinc will burn out in a voltaic battery. This necessitates a reg-

ular supply from food eaten, digested, and absorbed.

The power of red corpuscles to absorb and utilize oxygen is astonishing. They will take up from ten to fifteen times as much oxygen as water.

In the great laboratory of nature, unseen by man, the union and communion of oxygen with other elements charge these corpuscular bodies with their own proper vitality.

That red corpuscles have this vitalizing power, I think is demonstrated in experiment.

A dog, dead with peritonitis, had injected blood into its veins, by transfusion. The dog came to life, rose up on his feet, and wagged his tail, and lived for several hours, and then became a dead dog indeed. But you say, there were injected all the blood elements, so it might have been the plasma that revived, and not the red corpuscles. That is true; but in all cases where there has been an injection of plasma alone, even at the normal temperature, the attempted restoration to life has been a failure. When red corpuscles in the plasma have been injected, life has been restored.

The heart cut from a dog, but more especially from some of the lower animals, will quiver and spasmodically beat for some moments. The heart of the turtle will beat for some hours. Inject to the left auricle and ocutricle warm blood full of bright-red corpuscles, and it will be numbered in its pulsations; but inject simple plasma, and it will not be restored. Brown-Sequard has demonstrated this in his experiments on defibrinated blood and serum.

Let us note some phenomena. If we place ourselves in an upright position, and take deep and rapid inspirations of pure air for twenty to twenty-five inspirations, there is a strange sense of exhilaration. The mind becomes active; the blood flows rapidly; and a glow of warmth covers the whole body.

This is due to the surcharging of the red corpuscles with oxygen, and their full vitalization. These moving rapidly to the surface are quickly discharged in the capillaries, and so stimulate and vitalize the tissues, and take up the carbonic acid and eliminate it from the system.

It is not the plasma that is oxidized and vitalized, for chemistry so far fails to find any change in it, which would occur if this anatomical element was the vitalized part.

When carbonic-oxide, or laughing gas is inhaled, the large amount of oxygen is given up by the gas and unites in the lungs with the red corpuscles, and not the plasma, and is carried out to the periphery to be discharged by these red corpuscles in the capillaries. Under this stimulus one lives fast.

When chloroform is inhaled, it is absorbed by the red corpuscles and carried quickly to the capillaries of the brain and discharged, and unconsciousness occurs.

So with ether and other anesthetics; in no case do they affect materially the plasma of the blood—at least chemistry does not so indicate.

In cases of anemia the damage is not to the blood plasma, but to the red corpuscles. They become broken, scolloped, shrivelled, devitalized, and by degeneration lose the power of revitalization. Following this the plasma becomes degenerated. The white corpuscles—the possible pus generators—multiply; death ends the drama.

In habitual drunkenness the first attack of alcohol is upon the red corpuscles. These become broken, notched, and shrivelled. They lose their power of perfect vitalization. They can not carry oxygen. The plasma or tissue-building material can not build its material into the system without oxygen and vitality, or this electro-magnético-vital power. The tissues become charged with carbonic acid and worn-out tissue, which can not be taken up by the discharged red corpuscles, or taken up by the paralyzed lymphatics. The old soak is literally rotting to death. You can readily

understand why it is so dangerous to the old drunkard to receive any physical injury.

The constant smoking of tobacco affects the red corpuscles, lessening their power to carry oxygen and electro-magneto-vital power.

The miroscope detects these changes, and predicts the results.

It has been shown that "if we take a small dog, introduce a canula through the right jugular vein into the right side of the heart, adapt to it a syringe, and suddenly withdraw a great part of the blood from the circulation, immediate suspension of all the so-called vital processes is the result. If we return the blood to the system, the animal is as suddenly revived." If the blood plasma alone be injected, there is no revival; but when the red corpuscles are injected animation returns.

In the case of a gentleman, formerly a member of the Indiana legislature, who was ill with a poras abscess, I was called in counsel, and we determined to evacuate the abscess with an aspirator. The operation was performed between 8 and 9 o'clock P. M. I took some of the fluid into prepared bottles directly from the aspirator. I made a careful microscopical examination of the fluid during the night. The pus was remarkable in the large number of broken, deformed and diseased red corpuscles. Some were notched; some were a half, or a third broken away; others were warped and bent, like taking a copper penny and bending two opposite points toward each other; some were swollen on one side, while others were ruptured, and the contents like a clot was flowing out. There were other things seen in the material, such as pus-globules; two different kinds of anamalcule, and degenerated serum. But the noticeable thing for this discussion was the broken and degenerated red corpuscles.

In all other abscesses I have examined, the presence of broken, deformed, and diseased red corpuscles is noticeable. They are somehow connected with deficient nutrition,

with deficient vitality, with deficient æration of blood, with an absence of elasticity. The presence of bright-red corpuscles is connected with perfect nutrition, vitality, æration of blood, and a remarkable amount of youthful, vigorous elasticity. Their presence in this case is not accidental, or incidental, but they are there as great vital producers.

Just in proportion as the red corpuscles become degenerated, is health impaired, vitality lost, nourishment diminished for want of nature's constant electro-magneto-vital force.

The office and junction of blood plasma, I conclude, is nutrition alone.

The office and function of red corpuscles is to carry oxygen and vitalizing force from the lungs, nature's great generator, by the propelling power of the heart, to every part of the system; to be discharged of their electro-magneto-vitalizing element in every tissue of the body, and then be returned, and those still capable of revitilization, united with fresh corpuscles from food, to be again vitalized and sent out to perform their function. Thus is vital power carried everywhere.

I would be derelict, did I not speak of the diagnostic value of the red corpuscles. The physician does not fail to feel the pulse, note the rapid or slow, the thread-like or wirey, the full or sluggish, the even or jerky flow of blood, and by listening, discover the enlarged, the irritable, the dropsical heart, with the degenerated flat heart, the obstructed valves, and many other abnormal conditions and appearances.

He does not fail to inspect the tongue, percuss the lungs, knead the stomach, press the liver, examine the abdomen, and carefully search the spine. But how few ever remember that the great troubles heir to flesh are connected with blood changes, some of which are connected with deranged plasma detected by chemistry, and others connected with injured red corpuscles detected only by the delicate power of the physician's friend and ally, the microscope.

BOOKS AND PERIODICALS.

TRANSACTIONS OF THE NEW YORK ACADEMY OF MEDICINE. INSTITUTED 1847. VOLUME IV. PRINTED FOR THE ACADEMY, 1886. PP. 325.

(CONTINUED.)

One of the most important contributions to the literature of gynæcology in this volume, which abounds in papers on that and kindred subjects, is the prevention and treatment of puerperal fever, by T. Gaillard Thomas, M. D.

Next to this is another paper with precisely the same title by Fordyce Barker, M. D., in which it is clearly apparent the desire for discussion is both strongly prevalent and long-lived at the N. Y. Academy.

Dr. C. Heitzman is complimented by the reproduction of his paper on the progress of Biology in Europe. Careful reading of this paper shows a well-studied attempt to make deductions in no way warranted by scientific experiment or observation.

The concluding sentence of the essay is as follows :

“ The support given to my own doctrine BY THE BEST MICROSCOPIST IN EUROPE, S. STRICKER, is highly encouraging; and, perhaps, will convince some skeptics that my assertions were more than outbreaks of a lively fantasy.”

It may convince some *skeptics*, but surely no student of Biology will be convinced upon such feeble testimony.

Antiseptic dressings, as they are used at the N. Y. Hospital, by Robert Weir, sets out to consider the too imperfectly honored Sir Joseph Lister and his methods of saving life, etc., more seriously, however, considering recent improvements in antiseptic surgery. The paper is exceedingly elaborate, and deserves a wide reading. Even Mr. Lawson Tait can read this paper with some degree of profit, notwithstanding that he proclaims his willingness to use compressed disease germs as a surgical dressing, provided they can be made porous. This

I have not been able to examine more than a few diseases in connection with the microscopic aspect of red corpuscles. But such as I have examined, confirm my views as to changes in the red discs, especially in *anemia*, *abscesses*, *alcoholism*, *nicotism*, and I do not doubt the variety of changes in appearance will be discovered as time and study advances.

The red corpuscles, says Richardson, are found in tobacco smokers pitted in the disc-center. In inveterate smokers these corrupt corpuscles are as one degenerate to twenty-five healthy; and sometimes as one to ten. “ In such cases the countenance is pale and almost cyanotic; dark circles appear beneath the eyes, which lack luster, and are deeply sunken; and the respiration is weak and easily disturbed, while the heart palpitates violently upon very slight muscular exertion.”

The prognosis of some diseases can be made on the microscopical appearance of the red corpuscles and their number. A diminution is always dangerous. If that diminution is beyond a certain line, coupled with anatomical changes the conditions are grave. If they are found, under treatment, to assume better shape, and a natural number, the prognosis is favorable.

DISINFECTING THE
AIR OF SITTING
ROOMS AND OTHER
CHAMBERS.

The matter raised by the ordinary process of sweeping the carpeted floors in dwellings is often not only irritating to the air passages of those who breathe it, but frequently contains the spores of dangerous forms of bacilli. A good way to reduce the danger from this source is, to use the roller-brush sweeper, and as soon as the sweeping is done, spray a quantity of Listerine into the room, directing the spray toward the ceiling. As the spray is made to fill the air of the room all the fine light particles of foreign matter become moistened, and, by the increased weight of the vapor fall rapidly to the floor.

sounds very much like the fly who "would eat the bullock if he could get somebody to kill and skin him."

Antiseptic surgery is a question too big for discussion in one paper. It involves too many unsettled questions for profitable discussion in a general way. An improved method of treatment of certain forms of skin diseases, by Dr. P. A. Morrow, is an interesting contribution. The idea is to make the application of medicinal substances to the skin in the form of mixed adhesive preparations, in order to confine the application to the diseased surface alone, and to secure continued action by long maintained contact. The details are tersely set forth, and Dr. Morrow will find, no doubt, many appreciative readers of this valuable contribution.

Dr. George B. Fowler's plea for delicate tests for albumen in the urine is a brief, practical contribution.

Syphilis and locomotor ataxia, by Dr. Leonard Weber, is a paper, the merits of which our space will not permit us to discuss. We believe it contains many unfortunate statements along with some very sound methods of practice.

The essays of Dr. Garrigues, Dr. Robt. Abbe, Dr. Bryson Delavan, and Dr. R. W. Taylor are valuable clinical contributions.

Dr. Amidon's plea for more heroic surgical interference in affections of the brain has more practical value than pleas of this kind are generally found to possess, yet in some respects it may be considered dangerous in its tendencies.

Dr. Bosworth's description of the three tonsils, Dr. Ambrose L. Ranney's paper on the use of hot-water in certain nervous diseases, form the concluding part of this interesting volume.

The publishing committee announce on an enclosed slip that Vol. V will be ready for delivery in about five weeks. We shall anxiously await the lapse of those five weeks, and hope to be honored with a copy of Vol. V.

ANATOMIE ICONOCLASTIQUE ATLAS COMPLEMENTAIRE DE TOUS LES OUVRAGES TRAITANT DE L'ANATOMIE ET DE LA PHYSIOLOGIE HUMAINES, COMPOSE DE PLANCHES DECOUPEES, COLORIEES ET SUPERPOSEES. (TEXTE INCLUS.) PAR G. J. WITKOWSKI, DOCTEUR EN MEDECINE DE LA FACULTE DE PARIS. OEIL. DEUXIEME EDITION. PARIS: LIBRAIRIE H. LAUWEREYNS, G. STEINHEIL, SUCCESSEUR 2 RUE CASIMIR-DELAVIGNE.

WITH THE COMPLIMENTS OF MR. JOHN W. COOK, OPTICIAN, 4TH AVENUE.

This handsome atlas contains two figures of the left eye. One displaying the lachrymal passages; the orbicularis palpebrarum; the palpebral attachments; the lachrymal gland and ducts; the puncta lachrymales, the dacryocyst and ductus nasalis. Another figure presents the face view of the left eyeball and its recti muscles attached, showing the vessels of the ocular conjunctiva and the corneo-scleral relations in front. Raising the first leaf presents the iris, with its surrounding ciliary muscle pierced by the long anterior ciliary nerves; the anterior choroidal surface, and external plexus vasculosa are shown.

The leaves are so arranged, and the parts displayed are so numbered as to make the whole very simple in its mechanism, and easily understood by any one who will take the pains to read the descriptive text in viewing the various parts of the figures.

Such works are extremely valuable in schools and academies, and even in the family library. Every one who does not have frequent occasion to dissect eyes, should have the figure iconoclastique.

A TEXT BOOK OF HYGIENE, A COMPREHENSIVE TREATISE ON THE PRINCIPLES AND PRACTICE OF PREVENTIVE MEDICINE FROM AN AMERICAN STAND-POINT. BY GEORGE H. ROHE, M. D., PROFESSOR OF HYGIENE, COLLEGE OF PHYSICIANS AND SURGEONS, BALTIMORE. BALTIMORE: THOMAS & EVANS. 1885.

This is an octavo of 324 pages, covering many practical points in hygiene not usually

found in such publications. A chapter devoted to the germ theory of disease is scarcely up to the standard of the other portions of the work. Dr. Rohé has evidently given close attention to his subject in general. We commend his chapter on the construction of school-houses, and school hygiene in general, as the best that has been written on this subject. A chapter, entitled Industrial Hygiene, has been carefully written. Taken altogether, Dr. Rohé's work merits the attention of the medical profession. An elementary work of this kind has long been needed.

THE AMERICAN JOURNAL OF OPHTHALMOLOGY.

A monthly journal, edited by ADOLF ALT, M. D., and published at St. Louis by J. H. Chambers & Co., is a valuable publication, and should have a wide circulation. We very much fear it is seriously ill with too many "conjunction" editors. It generally appears that those journals having a score of assistant or adjunct editors begin soon to exhibit the blighting effects in the form of blank spaces. In the June, 1886, issue are five pages of more or less blank space. We hope Dr. Alt will *shake* his twenty-three adjuncts, and, taking the editorial quill in his own hand and proceed in future to supply the twenty-four pages of his magazine after his own good fashion. We insist a twenty-four page medical monthly should not have twenty-four Editors.

THE OPTICIAN, A MONTHLY JOURNAL OF SCIENTIFIC AND PRACTICAL OPTICS. J. E. HARPER, A. M., M. D., EDITOR, 163 STATE STREET, W. C. CALDWELL, M. D., ASSOCIATE EDITOR, ISADORE GLUCK, BUSINESS MANAGER, 605 WEST VAN BUREN STREET, CHICAGO. SUBSCRIPTION \$1.00 PER YEAR.

This modest and handsome little journal proposes to consider briefly the subjects of Refraction, Microscopy, Photography, etc. It is attractive in character and appearance, and will no doubt, as the editors hope, soon number its friends by the thousand. It makes its first appearance as of June 1, 1886.

CORRESPONDENCE AND SOCIETIES.

MITCHELL DISTRICT MEDICAL SOCIETY.

BY N. N. SHIPMAN,
M. D.,
SEYMOUR, IND.
[Semi-Annual meeting at
Seymour, Ind., June 3, 4,
and 5, 1886. Official Re-
port of the Proceed-
ings. Expressly for
PROGRESS.]

The Mitchell District Medical Society met in the lecture-room of the First Baptist church at Seymour, Indiana, June 3, 1886, at 2 o'clock P. M. Called to order by Dr. J. L. Moore, of Washington, President. Owing to the

absence of the Secretary, Dr. W. H. Lopp, Dr. Wm. H. Curtis, of Seymour, was appointed Secretary pro. tem.

Dr. G. Q. Orvis, of Seymour, after the opening ceremonies, reported some cases illustrating the value of permanent drainage of serous cavities.

Dr. J. S. Arwine, of Columbus, then read a paper on "*Myths in Medicine.*" A spirited discussion followed, which was participated in by members of the society. Dr. S. H. Charlton thought it was too "late in the day" for any one to come in and attempt to upset all of the well-grounded and well-established facts in regard to the doctrine of malarial infection. Every one knows how in early days before the country became well settled, and before tiling and ditching were scarcely thought of, how malaria prevailed periodically, and how every autumn we looked for its appearance as regularly as the autumn came, and scarcely a family in all this land escaped, and why is it now, if the gentleman's position be true, that we do not have the same amount of malarial fever that we had then.

Dr. Gerrish said he could not discuss the merits of the paper from any knowledge gained by experience, for he was too young in the profession, but would certainly have to stand by Dr. Charlton, and the old landmarks.

Dr. Kyle, of Manchester, spoke of the ancients having "many gods," and likened the present questions, with their hobbies and

superstitions, to them. He said malaria may be quite a "myth" but it makes a person very sick sometimes. Is it possible that there is nothing in what we call "malaria," and that there are no poisonous gases emitted from decaying vegetable matters? and that all we have been taught to believe on the subject was but a "myth?" He differed very much from the essayist in calling the malarial condition a myth.

Dr. Galbraith, of Seymour, said he did not have much patience in discussing this question, and he thought the older he got and the more experience he had in the treatment of this so-called malaria the less he knew about it. He was not ready however to wholly acquiesce in the new departure as set forth in the paper just read. He stated an instance of a case of malarial fever that he had treated successfully, where the party was opposed to the use of quinine, with some simple remedy that was entirely destitute of any anti-periodic properties whatever.

Dr. Geo. L. Curtis said he had heard a great deal and had read a great deal about malaria, but was not ready quite to accept or reject the opinions set forth in the paper. He spoke of three theories, none of which had been fully accepted by the profession. He was of the opinion however that there was a specific poison known as malaria, or miasma, prevailing more or less in or during the summer months. He gave instances of several cases where the spread of the poison was attributable to the wind carrying it over the country, having first passed over low swampy districts.

Dr. Kyle said his experience was that when the wind prevailed in the east for a few days it almost always brought with it disease of the air passages, and not infrequently malaria.

Dr. Moore thought that tiling and draining had done much towards diminishing malarial diseases. His experience was similar to that of Dr. Curtis. He had noticed that the wind had much to do with the

spread of malarial poison. He thought that frequent overflows, where the country is swept clean of all vegetable matter, that malaria is less prevalent than when matters are allowed to accumulate and decay.

Dr. Orvis said that he had lived in what was called malarial districts, but never had experienced any trouble from poison. He thought much could be said for and against it.

Dr. Arwine then closed the discussion. He said that the so-called malaria was not confined to low marshy districts, but was quite frequently found upon the high and dry places. He would not try to answer at this time the many points that had been brought out in the discussion, but thought that he was fully able to defend the paper. He thought that all diseases were the result of violated natural law. It was so from the beginning, and is so to-day. Oftentimes the failure of the system to eliminate the effete matters is the cause of disease, and this failure is the direct result of violated law. He said that because a thing was believed by a majority of the profession it was no argument that it was true. All great discoveries were opposed bitterly by the adherents of established theories.

He thought that the natural decay of vegetable matter instead of producing the poison known as "malaria," has so gradually returned to its natural elements that no disturbance of hygienic law could possibly take place.

EVENING SESSION.

The meeting was called to order by Dr. J. L. Moore, President.

The first thing on the programme being the address of the President, Dr. W. M. Rodman, of Brownstown, was called to the chair.

The President then said he would be obliged to explain that his address had been prepared with the view of provoking an expression of opinion on the inadequacy of the laws of Indiana regarding the practice of medicine.

After reading the address, the President again took the chair.

Dr. Dudley S. Reynolds, of Louisville, being present by invitation, made a few remarks, suggesting that a committee be appointed by the society to memorialize the legislature on the necessity of better laws regulating the practice of medicine in Indiana.

Dr. Charlton also spoke briefly in the same strain on the subject, when the President closed by urging the society to take immediate action on the subject.

Dr. Dudley S. Reynolds, of Louisville, then read a paper entitled "*Ophthalmia Neonatorum*." He dwelt upon the importance of great care in handling infants at birth, to prevent the accidental introduction of foreign matter, and spoke of the difficulties of early diagnosis in cases suspected to be gonorrheal.

Dr. Galbraith, of Seymour, then spoke approvingly of the paper, complimenting the author, and requesting that Dr. Reynolds give a brief outline of treatment in a typical case of the muco-purulent form of the disease for the benefit of the society.

Dr. Orvis thanked the essayist for his paper, and gave his own experience in a few cases that had occurred in his practice. He said that he never found any good resulting from the use of nitrate of silver in any of its forms.

Dr. Charlton said he had used the argt. nitrate treatment in some cases with apparently good results. In several very obstinate cases he had desired a better plan of treatment than he had before heard of.

Dr. Kyle, of Manchester, spoke of the importance of the subject on account of the frequent occurrence of cases in general practice, when specialists could not be consulted, and called on the author to give a specific line of constitutional treatment, and how he used the carbolic acid and borate of sodium, and in what proportions, etc.

Dr. Reynolds then closed the discussion by answering the several questions propounded by the several gentlemen who took part

in the discussion. He spoke of the microscope as being indispensable in making a diagnosis in many other forms of disease, and particularly in contagious purulent ophthalmia. He spoke also of the manner in which microscopical specimens might readily be prepared for present and future use.

He said in conclusion that the remedies he relied upon the most in the treatment of purulent ophthalmia were the borate of sodium ten grains to an ounce of water, every half hour or so, as urgency demands, alternating sometimes with the chloride of sodium in the same proportion and in the same way, using in bad cases a saturated solution of the chloride. A vote of thanks was tendered Doctor Reynolds for his didactic instructions as well as for the paper, which it was requested should be published in PROGRESS.

The meeting then adjourned until Friday morning at 9 o'clock.

FRIDAY MORNING SESSION.

The meeting was called to order promptly at 9 o'clock, by the President, Dr. J. L. Moore. The minutes of the previous meeting were read by the Secretary, and approved.

Dr. Shipman, of Seymour, then read letters from Drs. Comigor and Cook, of Indianapolis, regretting their inability to be present at the meeting; the former on account of being called away from the city, and the latter on account of sickness in his family.

Dr. Kyle, of Manchester, then read a paper entitled "*Venesection as a Therapeutical Agent*."

The paper was referred to the publishing committee, and afterwards discussed as follows:

Dr. Shipman said that in these latter days the lancet had fallen into disuse, but could see no reason why it should not hold its place with the leading anti-phlogistic remedies now in use. He had used it with much satisfaction in congestion of the internal or-

gans, and would recommend it to the profession.

Dr. Gerrish said, though a young man in the profession, and without experience in the use of the lancet, he believed the time would come when it would come into general use.

Dr. G. L. Curtis then asked the essayist his opinion in regard to the pathological conditions of the blood immediately before and after blood-letting. He said the rapid beating of the heart did not force the blood proportionately throughout the body. He did not indorse the paper fully, and as far as he was concerned had never seen the time when he would have been willing to let his blood go. He thought the paper a good one, and that there might be cases where blood-letting would be necessary, but there were other remedies, perhaps, that would answer the purpose as well.

Dr. Orvis thought the lancet was certainly useful in congestion of any of the vital organs, and especially useful where there is threatened cerebral hemorrhage.

Dr. Curtis said, why do persons as a general rule feel unusually well immediately before a fatal attack of cerebral hemorrhage? Several cases that had come under his own observation spoke of having never felt better in their lives just before the fatal result took place.

Dr. Moore said he had not had much experience in the use of the lancet, and was not prepared to discuss the question. He stated the symptoms in his own case, and asked the essayist if he would advise blood-letting?

Dr. Kyle said no good results can be expected from blood-letting, where fatty degeneration of the heart has taken place. He concluded by thanking the society for the kindly discussion of his paper, and stated in answer to Dr. Curtis's question, that the conditions which generally called for venesection were vertigo, numbness of the limbs, staggering gait, and a full, bounding pulse. He spoke of a case in his own

practice where some of these symptoms were present, and which resulted fatally in a few hours. His object, he said, in presenting his paper was to provoke discussion on the subject, and bring out the thoughts and experiences of others. He said no possible good could result from the remedy in cases of fatty degeneration.

Dr. Curtis asked the essayist in regard to painful menstruation in young girls. He mentioned a case in answer, where a semi-epileptic was greatly benefitted by venesection, and thought it would prove useful in a majority of cases occurring in the young.

Dr. Gerrish asked why the lancet should not be used during an attack of apoplexy, where the patient was unconscious, and there was stertorous breathing?

Dr. Kyle thought it would be without effect where the injury had already been done to the brain.

Dr. Orvis then read a paper on "Nasal Catarrh."

DISCUSSION.

Dr. Galbraith said it was a subject to which he had not given much attention, but he thought every physician should be prepared to treat ordinary cases that occur in general practice, and should familiarize himself with every disease and its treatment. He thought instrumental interference, when ignorantly performed, always resulted in more harm to the patient than good.

Dr. G. L. Curtis thought the paper a good one, and said the douche was good when the fountain was not placed too high, thus reducing the force of the current, and is less liable to do injury. He thought the most important thing to be done was to keep the parts perfectly clean, and let nature do her work, excepting where surgical interference was necessary. He said it was a nasty thing to treat, and a much more nasty thing to have.

Dr. Cummings said he thought that the douche was the proper treatment.

Dr. Rains, of Cortland, said the subject was one peculiarly interesting to him, as he

himself was a victim. He said his case was complicated with asthma, and gave his experience in the use of aconite and ether, which never failed to give relief. He had also tried tincture sanguinaria, and found it very satisfactory. He would like to hear an expression from the members of the society on asthma; its general pathology and termination; its treatment.

Dr. Kyle said he looked upon asthma as a neurotic disease, and catarrh as a local disease. He said he could not see how tincture sanguinaria could produce any physiological effect in the cure of asthma. He concurred with Dr. Curtis in his remarks on the treatment of nasal catarrh.

Dr. Orvis closed the discussion by saying that he used the douche only as a temporary remedy. The only true method of treating catarrh was with the medicated spray, and it must be applied so as to reach every sinus and fold of the mucous membrane. This could not be done with the simple douche. He did not think tincture sanguinaria good in asthma. He had succeeded well in a case or two with iodide of potassium and the bromides.

Dr. Banker, of Columbus, not being able to attend the meeting sent his paper, which was read by title and referred to the publishing committee.

A committee on nominations was then appointed by the chair, consisting of Drs. Gerrish, Orvis, Galbraith, Kyle, and Barnes.

Dr. George L. Curtis then read a paper on the "Distinctive Offices of the Plasma and Red Corpuscles of the Blood."

The discussion of the paper was postponed till the afternoon session. The meeting then adjourned to meet at 1:30 P. M.

AFTERNOON SESSION.

The society met promptly at 1:30 P. M. The President in the chair.

The discussion of Dr. Curtis's paper being first in order.

Dr. Kyle said the paper was fully up with the advanced ideas in regard to the question,

and hoped to see the paper in point. He thought as soon as we become more familiar with the use of the microscope we shall be better enabled to make diagnosis of disease, and we shall also be able to determine the immediate cause of death in many instances where it is now obscure.

Dr. Galbraith said he did not feel able to discuss the paper on account of his limited knowledge of the subject. He took exception, however, to some portions of the paper. He thought nutrition was greatly retarded if not entirely destroyed when the subject was saturated with alcoholic stimulants.

Dr. Curtis then closed the discussion of the paper by answering some of the objections made by the gentlemen who took part in the discussion. He spoke also of the large field that opens itself up to the wide-awake student in search of scientific truth, and thought the day close at hand when the microscope would form a very necessary part of every physician's outfit.

The committee on nominations then reported the following officers to serve the ensuing year: For President, Wm. M. Rodman, M. D., of Brownstown; for Vice-President, A. J. McDonald, M. D., of Mitchell; for Secretary, G. W. Burton, M. D., of Mitchell.

A resolution of thanks to the Baptist society for use of their lecture-room was adopted; also to the press of the city for favorable notices, etc., whereupon the society adjourned, to meet at Mitchell next December.

THE BEECH FORK

MEDICAL SOCIETY.

The regular quarterly meeting of the Beech Fork Medical

Society was held at Lebanon, Kentucky, on Tuesday, July 20, 1886. Many interesting papers were read and discussed. Dr. Wm. H. Wathen, Dr. Martin F. Coomes, and Dr. J. Morrison Ray, of Louisville, were present by invitation, and took part in the deliberations. We regret not receiving a full report in time for publication.

MISSISSIPPI
VALLEY MEDICAL
ASSOCIATION.

[Annual Meeting at Quincy,
Ill., July 13th and 14th,
1886. Reported for PRO-
GRESS.]

The Mississippi Valley Medical Association convened at Quincy, Illinois, July 13, 1886.

President Dr. Arch Dixon, of Henderson, Ky., in the chair.

The Secretary being absent Dr. E. B. Montgomery, of Quincy, Ill., was elected to serve for the session.

Members present were requested to register, to facilitate which, at the suggestion of Dr. Jos. Robbins, Chairman of Committee of Arrangements, the Society granted a brief intermission.

At three o'clock P. M. the Society was again called to order.

Dr. H. M. Lane, of Carthage, Mo., late U. S. Consul General, Rio de Janeiro, read an interesting account of his investigations of the claims of Friere, concerning the protective value of vaccination with the attenuated virus of yellow fever. Dr. Lane stated that Friere cultivated the microbe from black vomit, and by successive injections into rabbits and guinea pigs succeeded in obtaining an attenuated form with which more than seven hundred persons known to Dr. Lane had been vaccinated, the Doctor himself having submitted to the operation at the hands of Dr. Friere. He said in four or five days he had a mild type of yellow fever, which, in about seven days had entirely disappeared, which was at no time sufficient to confine the Doctor to his bed, yet he was obliged to keep his room.

Dr. J. Louis Bauer, of St. Louis, presented a man, about twenty-eight years of age, with a cicatrix running transversely from the umbilicus about five inches to the right side. He stated the patient was suffering with severe symptoms of ileus, having been for some time in bad health. An anesthetic was administered and a transverse section of the abdomen made for diagnostic purposes. It was found that a hepatic abscess containing near a quart of matter, besides a number of gall stones, had given rise to the

ileus. The abscess was opened and washed out. No adhesions existing between the peritoneum covering the liver and that lining the abdomen, the wound was left open for drainage, a large part of the gall bladder, it was stated, sloughed and came away, the patient, however, made good recovery.

Dr. F. W. Beard, of Vincennes, Ind., then reported some experimental observations on the pulse rate of Sam Archer, the criminal who was hung at Vincennes on the 6th of July. Dr. Beard found the criminal's pulse reached 192 before life was extinct, and that death took place by strangulation. He reported that the criminal after death was found to have had an emission of semen; this point in Dr. Beard's paper was discussed somewhat elaborately, without, however, eliciting any new facts.

The society then adjourned until eight o'clock P. M.

NIGHT SESSION.

On coming to order at eight o'clock, Dr. Ohmann-Dumesnil, of St. Louis, read a paper on "Lupus Erythematosus," illustrating the subject with drawings on the black-board and by microscopical sections of the morbid specimen from one of the patients.

Dr. Wm. Porter, of St. Louis, read an interesting paper entitled "Noises in the Head and Ears."

Dr. A. Dixon, President, read an important clinical contribution on the subject of "Hernia."

Artificial Alimentation was the subject of an elaborate paper by Dr. Isaac N. Love, of St. Louis. He detailed every known means of introducing food artificially into the system, after which the society adjourned to meet at 9 A. M., Wednesday.

WEDNESDAY MORNING, JULY 14.

The society was promptly called to order by the President.

On motion the subject of Dr. Love's paper on "Artificial Alimentation" was taken up for discussion, and kept attention for an hour or more, after which the President ap-

pointed the following committee on nominations:

Jos. Robbins, Illinois, chairman; F. R. Fry, Missouri; Dudley S. Reynolds, Kentucky; F. W. Beard, Indiana.

The committee was instructed to report immediately after noon.

Dr. Fry, of St. Louis, then read a paper on "Etiology of Chorea," in which he disputed the theory of its rheumatic origin, and undertook to point out the specific cause in some obscure form of malnutrition to be corrected mainly by the use of arsenic and hygienic measures.

By permission Dr. Dudley S. Reynolds, of Louisville, Ky., then offered the following resolution, viz:

Resolved, That the Mississippi Valley Medical Association adopts as part of its organic law and binding upon all its members the code of ethics of the American Medical Association.

In offering this resolution, Dr. Reynolds said it was painfully apparent the society had lost ground by undertaking to maintain an anomalous and independent existence; the time had now come in the medical politics of this country when no society of the regular medical profession could be maintained upon such ground; it *must* adopt some ethical basis of qualification for its membership; that he hoped the code of ethics of the American Medical Association would be sufficiently comprehensive to meet all the requirements. He saw no reason why members of the Mississippi Valley Association should not maintain and defend the same ethical principles as the various members habitually observed and defended in other societies of which they were members. He felt the time had come when the Mississippi Valley Association should embrace all the territory West of the Alleghany Mountains, and that any medical organization, in this section of country at least, should not find the least difficulty or hesitation in adopting the code of ethics of the national organization.

Dr. Bauer, of St. Louis, vigorously op-

posed the resolution, upon the ground of his dislike for the American Medical Association, and his utter hatred of its code of ethics; he thought the "Ten Commandments" sufficient to govern the conduct of members of this body. Dr. Bauer's language was very intemperate and excited.

Dr. Wm. Porter, of St. Louis, followed with the statement that unless the society adopted the resolution, or some similar resolution embracing the code of ethics, this would perhaps be the last meeting it would hold; whereas, if the resolution was adopted, he was prepared to concur fully in the sentiments expressed by the gentlemen who offered it.

Dr. Bauer again took the floor, and called attention to the "Ten Commandments" as sufficient for our government. He was interrupted by a member who reminded him that the Mississippi Valley Association had never yet adopted the "Ten Commandments" as part of its constitution or by-laws, or even by resolution signified its intention to enforce this ancient law upon the members.

Dr. Jacob Geiger, of St. Joseph, Missouri, thought the time had come for the adoption of the code of ethics or the disbanding of the society. He considered *now* the most favorable time for laying the foundation for a great Western organization, such as that named by the first speaker. He thought we had wasted time enough in the discussion of the subject, and hoped to see it adopted at once.

After various motions, some to amend by reference to a special committee, to lay on the table, etc., the original resolution was put upon its passage, and the ayes and noes being called for, adopted with but *two* dissenting votes, viz: Wagner, of Quincy, and Lyman, of Chicago.

Dr. Bauer, declining to vote on the resolution, arose as soon as the result was declared, and dramatically retired from the hall, and from the society.

On motion the chair then appointed a committee to draft a suitable constitution

and by-laws for the government of the Society.

Dr. Wm. Porter, of St. Louis, was made chairman of this committee, and instructed to have his report ready at the calling to order of the Association next year.

Dr. Henry M. Lyman, of Chicago, then read a lengthy paper on the discovery of anesthetics, which proved to be a slight revision of the first chapter of his book on anesthetics, published in 1881.

Dr. Robt. Barclay, of St. Louis, then read an interesting paper on "Autophonia."

The society then adjourned until two o'clock P. M.

AFTERNOON SESSION.

Society called to order by the President, Dr. Dixon, in the chair, at two P. M.

The Nominating Committee then reported the following officers for the ensuing year:

President, Isaac Newton Love, St. Louis, Mo.; First Vice-President, Jos. Robbins, Quincy, Ill.; Second Vice-President, Thos. B. Harvey, Indianapolis, Ind.; Third Vice-President, Jacob Geiger, St. Joseph, Mo.; Secretary, J. L. Gray, Chicago, Ill.; Assistant Secretary, Ed. Alcorn, Houstonville, Ky.; Treasurer, A. H. Ohmann-Dumesnil, St. Louis, Mo.

COMMITTEE OF ARRANGEMENTS:

Dudley S. Reynolds, Louisville, Ky., chairman.

Preston B. Scott, Louisville, Ky.

Jos. M. Matthews, " "

J. M. Holloway, " "

J. A. Ochterlony, " "

Louis S. McMurtry, Danville, Ky.

L. B. Todd, Lexington, Ky.

J. G. Brooks, Paducah, Ky.

Jas. H. Letcher, Henderson, Ky.

Jos. N. McCormack, Bowling Green, Ky.

S. W. Willis, Winchester, Ky.

T. C. Evans, Flemingsburg, Ky.

Place of meeting, Crab Orchard Springs, Kentucky.

Dr. Reynolds, of Louisville, and Dr. Wm. Porter, of St. Louis, were appointed to con-

duct the newly elected President to the chair. On taking his seat, Dr. Love thanked the Society for the honor, and proceeded to call the regular order of business.

Dr. Dudley S. Reynolds, of Louisville, read a paper on "Correcting Errors of Refraction of the Eye," which was discussed by a majority of the members present.

Dr. A. C. Bernays, of St. Louis, read a brief clinical report on a case of tubal pregnancy in a woman having a double uterus with a single os, both organs being fully developed in the body but fused in the cervix, the two cervical canals coming together just at the os. The fetal sac having ruptured, the patient died. The uterus and its appendages, including the fetus which had attained three months' development, were excellently preserved.

The next case of interest by Dr. Bernays, was an illustrated account of ligature of the two vertebral arteries between the atlas and axis, for the relief of an obstinate case of epilepsy. The operation was done at the request of a neurologist of considerable reputation, and not in obedience to the suggestion or even of the mature judgment of the operator.

Dr. J. L. Gray, of Chicago, said the chief interest in cases of this kind, it seemed to him, had been lost sight of in the ligature of the vessels. It was a well-known anatomical fact that the vertebral arteries are surrounded by a rich plexus of ganglionic nerve filaments, communicating with the pneumogastric; that it was hoped to relieve some forms of epilepsy, by ligating these arteries, which include, of course, the ligature of the nerves, to cut off the wave of irritation coming up from the stomach to disturb the brain. Some good results had been reported, yet in his experience by no means sufficient to warrant the hope that in the performance of the operation any material advance in therapeutics had been secured.

Several other gentlemen present discussed the paper briefly.

Dr. J. L. Gray, of Chicago, then read an

illustrated essay on "Catarrhal Gastritis," which was discussed by Drs. Love, of St. Louis, Reynolds, of Louisville, and Geiger, of St. Joseph.

Dr. L. H. Cohen then read a clinical contribution on "Electro-Therapeutics," reciting several cases.

"The Therapeutics of Hot Water" formed the subject of an essay by Dr. E. B. Montgomery, of Quincy. This paper provoked an interesting and prolonged discussion, participated in by nearly all the members present.

"The Therapeutics of Bismuth and Asclepia Tuberosa," by Dr. Amos Sawyer, of Hillsboro, Illinois, was a carefully prepared and well-delivered essay.

Dr. Wm. Porter, of St. Louis, offered the following, which was unanimously adopted:

Resolved, That we unite in one determined effort to make this Society second in size and importance to the American Medical Association only, by inviting every member of the regular medical profession in good standing, in every State and Territory west of the Alleghany Mountains, to meet with us next year; and, that we urge the importance of local society organizations throughout the country.

After adopting various resolutions of thanks to the Committee of Arrangements, to the railroads for reduced fares, to the officers of the Society, on motion the Society adjourned to meet the second Wednesday in July, 1887, at Crab Orchard Springs, Kentucky.

the prospective work of the society, and thought the organization would be greatly strengthened in consequence of the universal spirit of fraternity in the profession of Kentucky.

Following this address were presented the reports of the Librarian, the Secretary, the Treasurer, and the Committee on Credentials.

Dr. H. Brown, of Houstonville, made the report on necrology. He mentioned the loss of but two members by death since the last meeting, both old and distinguished residents of Danville: R. W. Dunlap, M. D., and A. R. McKee, M. D. This report was on motion referred for publication.

The Chairman of Committee of Arrangements and Credentials reported favorably on the applications of thirty-five candidates for membership, all of whom were duly elected.

President then proceeded to deliver his annual address, in which he took occasion to speak of the importance of thorough organization of the profession to secure a higher medical education, and maintain in its highest state of excellence a pure professional character. He believes firmly in the necessity for legislative enactment as a safeguard against the dangers of quackery, and promote the advancement of medicine in all its departments, and secure for the commonwealth a well organized board of health, composed of educated sanitarians. He paid a just tribute to the zealous labors of Dr. J. N. McCormack, the able and accomplished Secretary of the Kentucky State Board of Health. He thought the first step toward securing the necessary legislation to suppress quackery, and enforce a higher medical education, and secure proper sanitary laws for Kentucky, a committee of five or more members of the State Society should be appointed to draft the form of the necessary legislation, which should be published in a circular letter to every Legislator and reputable practitioner in the State, and finally presented to the general assembly with the memorial; that the necessary expenses of

THE KENTUCKY STATE MEDICAL SOCIETY.

[Thirty-first Annual Session, held at Winchester, June 23, 24, and 25, 1886.
Reported for PROGRESS.]

The Kentucky State Medical Society was called to order by the Pres't, J. P. Thomas, M. D., of Pembroke, at two o'clock P. M., June 23d, in the Opera

House at Winchester.

On motion, the reading of the minutes of the last annual meeting was dispensed with.

The address of welcome was delivered by Dr. S. W. Willis, Chairman of Committee of Arrangements, who spoke encouragingly of

printing, postage, and mileage of said committee should be paid out of the treasury of the State Society. Speaking of the admission of ladies to membership in the medical profession, the President said, "In fact woman was divinely intended from the first creation to be an improvement on man; this is proven by the material employed in her creation. Adam, the man, was made of such crude material as dirt, while Eve, the woman, was made of pure bone, refined by the process of bioplastic organization; not even of dead bone, but bone taken from the living man while in a state of anesthesia, which fact alone sustains her title under the profession of medicine and surgery, as her creation was the result of the first surgical operation ever performed under anesthesia." It is evident the President had recovered his lost rib with interest in the nature of several supplementary ribs, none of which, we hope, rightfully belong to another Adam.

On motion of D. W. Yandell, the committee of five suggested by the President was appointed by the chair, with instructions to lay the President's address before the next legislature of Kentucky.

"Ulceration of the Sigmoid Flexure of the Colon" formed the subject of a clinical report by Dr. J. G. Carpenter, of Stanford. The case was a man twenty years old, who had dysentery, beginning in August, 1885, becoming chronic. Dr. Carpenter was called the following December. By the use of a warm solution of chloride of sodium the Doctor washed out the lower bowel thoroughly, and introducing the Simm speculum, with the patient's hips elevated 80°, the bowel was so inflated as to permit the introduction of an electric lamp, which at once disclosed an ulcer in the sigmoid flexure of the colon. This was treated by topical applications of the solutions of nitrate of silver, varying from forty to sixty grains to the ounce of water. The applications being made sometimes by aid of the electric lamp, sometimes by the use of reflected light, us-

ing sunlight at times, and at other times the light of the student's lamp. The laryngeal mirror being used as a reflector. The discussion developed the astonishing fact that Dr. Carpenter had been able to see twelve inches up the gut.

Dr. Pinckney Thompson, of Henderson, could not understand how it were possible to distend the bowel in this way to so great an extent; he could not understand how an electric lamp could be introduced into the bowel for purposes of illumination without obscuring the view.

Dr. W. H. Wathen, of Louisville, thought he could see how it were possible to dilate and illuminate the bowel to the extent named by the essayist.

Dr. Wm. Bailey thought it quite remarkable Dr. Carpenter had been able with the Sims speculum, which is about six inches long in the blades, to dilate the sphincter ani muscle which covers an extent of eight inches in the length of the bowel, yet it was clearly manifest from Dr. Carpenter's statement that he had been able to see farther into the subject than any one else, which he supposed was sufficient to silence further discussion.

In the absence of Dr. J. A. Larabee, who was called to report on "Pediatrics," Dr. J. Clark McGuire was on motion invited to read his paper on the "Influence of Syphilis upon Non-Syphilitic Eruptions of the Skin." The essayist thought the prevalence of syphilis is no doubt exaggerated. According to the best statistical information, syphilis holds the third position as a cause of cutaneous diseases. He thinks the presence of syphilis calls for important modifications in the treatment of all chronic cutaneous eruptions. Dr. McGuire concludes, in the diagnosis simply of skin diseases, as well as syphilides, it is advisable to rely entirely upon the objective symptoms. The main point insisted upon by the essayist being the necessity of recognizing a modifying influence of constitutional syphilis upon all cutaneous eruptions.

Dr. Martin F. Coomes, of Louisville, read the report on "Ophthalmology." He called attention to the fact that errors of refraction oftentimes develop severe headache and other neurotic phenomena before any symptoms of asthenopia occur. In fact, he regards asthenopia as one of the late results of errors of refraction. He pointed out some modified forms of Charcot's disease which so strongly resemble glaucoma as to render the diagnosis difficult. He related a case in which the photophobia was so great as to render examination of the eye impossible.

Dr. J. M. Ray had seen the case in consultation with Dr. Coomes, in which all the symptoms of glaucoma were present except the increased tension of the globe. The eye could not be examined by the ophthalmoscope on account of morbid sensibility to light, but the local use of eserine and a liberal supply of nutritious food gradually brought about recovery. He had advised iridectomy in this case, and still believed it ought to have been performed, yet the patient finally recovered without it.

Dr. Dudley S. Reynolds, of Louisville, questioned the diagnosis; thought it a misfortune to hold out a hope of relief from glaucoma by the use of eserine or any thing else short of iridectomy. While he has known eserine to relieve tension and pain, and is willing to believe the progress of glaucoma might be retarded in many cases, it is a dangerous delusion to suppose eserine has any power to completely arrest the glaucomatous process. Iridectomy should be promptly done as soon as the diagnosis of glaucoma has been established. The eserine, no doubt, might be employed with good result for the relief of pain after the operation. In such cases it may be used in the proportion of one half grain of sulphate to the ounce of water, to be instilled every four hours.

Dr. E. Williams, of Cincinnati, had had much experience in glaucoma himself; often found practitioners giving quinine, under the

impression that the patient had neuralgia, till the patient's eyes were hopelessly lost, as the sight varies. It is often the habit amongst general practitioners to conclude the patient has cataract, which it is advised shall be permitted to proceed until it is ripe. He thinks it would be useless to operate upon a ripe glaucoma. He concurs with Dr. Reynolds with regard to the slight benefit to be derived from eserine pending the operation, but it should never be relied upon as a therapeutic agent in glaucoma. It may be beneficial in doubtful cases as tending to make the diagnosis more clear, but iridectomy is the only remedy for true glaucoma.

Dr. Ray insists he has seen glaucoma entirely cured by the use of eserine. In one case the glaucoma returned, and was a second time relieved by it.

Dr. David W. Yandell wished to say, as a representative of the general practitioner, that the lesson to be learned from this discussion is valuable. It would appear established that eserine in the treatment of any case of glaucoma is a snare and a delusion, that iridectomy is the only recognized remedy; that in doubtful cases where no competent specialist may be summoned, the general practitioner might use eserine to clear up the diagnosis or hold the disease temporarily in check.

On motion the Society adjourned till 8 o'clock P. M.

EVENING SESSION.

Society called to order at 8 o'clock by the President. Every vacant seat in the hall was occupied by members and invited friends.

Dr. E. Williams, of Cincinnati, according to the programme, proceeded to read one of his humorous addresses, entitled "The Uncommonness of Common Politeness." The doctor is an original character in the profession, and has done more to enliven the annual meetings of the various State Medical Societies than ever Mark Twain did to amuse the public by his recitations. This address of Dr. Williams in many points bore

a striking resemblance to Mark Twain's descriptions of Life on the Mississippi, and to the adventures of Huckleberry Finn. It was well adapted to the occasion, and will not soon be forgotten by those who were fortunate to hear the essayist in his droll and peculiar strain read off in measured sentences an account of his experience sitting in a street car, whilst a young lady, who said she felt "bully," stood up in front of him.

At the conclusion of this address, the report on "Pathology" was called for. Dr. Dudley S. Reynolds, Chairman of the committee, expressing his regrets at not being able to present something more humorous and entertaining, began with a recital of some of the recent advances in the now new science of pathology. He thought the time had come when all the medical text-books should be re-written. The doctrine of heredity, as taught from the time of Hypocrates, was just now within the past decade completely revolutionized; in fact, it might be said, the revolution really began with the discovery of the cause of tuberculosis. Heridity itself may establish conditions favorable to the growth and development of the fungus or bacillus, upon which it is now known all tuberculous diseases depend. The progeny of uncongenial types or races of men, the subjects of inherited syphilis, and those who acquire a state of lymphatic engorgement, known as the strumous diathesis, sometimes called scrofulosis, which, by the way, is a bad term and ought to be abandoned, furnish no other evidence of inherited tuberculosis than a mere predisposition in the form of soil for its growth.

The bacillus of tubercle flourishes in the lymph and in the blood serum. In persons having a superabundance of lymph with abrasions and consequent exudations the bacillus finds ready entrance, and in those having most lymph, it grows most extensively and is most likely to have fatal termination, while in those having but little lymph, the bacillus of tubercle does not by any means portend a fatal issue.

We are to understand that consumption is a contagious infection, that those who inherit it always show evidences of its presence within the first few weeks of nativity; it runs its course more slowly than other infectious diseases, syphilis alone excepted, yet it can not remain inactive in the system from birth to adult life. It is therefore absurd to conclude that strong facial resemblance, likeness of complexion, size, form, and disposition have any thing whatever to do with the predisposition to consumption.

Life insurance companies must learn to attach far more importance to glandular enlargements, chronic suppurative inflammations in the ear, exudations of lymph in the nose and pharynx than to that bit of nonsense called family history, wherein it is proposed to greet with suspicion the young man with an appearance of vigorous health and fine physical development, who bears a strong family likeness to his paternal aunt who died at the age of thirty-six, with some chronic pulmonary affection, said to be tuberculosis.

Examinations of exuded lymph found in the nasal passages, in the pharynx, in the larynx, and in a few instances in the discharges from the middle ear, are often found to contain the bacilli of tubercle in persons pronounced by experts to be absolutely free from any sign of pulmonary disease, or any evident predisposition to tuberculosis, the family history, according to the popular standard, being entirely unobjectionable. The microscope must, therefore, alone decide the nature of morbid matters, whether it be in suspected tuberculosis or doubtful cases of enteric fever; in fact, the microscope alone enables the pathologist to know what could but otherwise be held as a mere suspicion.

One of the most important advances recently made in pathology may be illustrated by the recital of a little personal experience: On the 26th of March, 1886, Prof. Frank C. Wilson brought to me a bottle of water with this note pasted upon the bottle:

"DOCTOR: This water is from a well which supplies a family in which three persons have recently died of typhoid fever; there are two new cases in this family; please examine the water and report as soon as possible.

Yours, etc., JOHN A. LARRABEE.

Evaporating eight drops of the water from each of twelve cover glasses, which were prepared and stained, some with methyl blue, some with methyl violet, some with Bismarck brown. Observing carefully the method of Rindfleisch, and Klebs, I was quite surprised to find large collections of jointed bacilli arranged in chaplets, the bodies of the bacilli being stained red (in those prepared with the methyl violet), while in each joint a distinctly and sharply marked dark-blue nucleus appeared. The other stains were less satisfactory.

On the 27th of March Dr. Larrabee sent me a quantity of blood said to have been passed from the bowels of one of the patients; this blood was treated precisely after the manner of Letzerich, being stained with methyl violet, jointed bacilli arranged in chaplets identical as to coloring, form, size, and appearance with those found in the water taken from the suspected well, existed in great numbers in every one of the twelve slides examined.

Without stopping to consider as to the causal relations supposed to exist between the water of the well and the microbes from the patients affected with the fever, it is interesting to observe the identity of this microbe with that obtained from cases of typhoid fever in the hog, by Lewis and others. The bacillus of typhoid fever is not present in the general circulation of the blood during life, but grows with enormous rapidity in the blood which escapes into the intestines in hemorrhagic types of this fever, so that the blood passed from the bowels is well nigh a pure culture of the bacillus. Another point to which the reporter directed attention is the importance of establishing at the earliest possible moment the nature of the mucopurulent or purulent conjunc-

tivitis. No naked eye appearances have been found sufficient to distinguish the contagious forms of gonorrheal inflammation from that which is comparatively harmless, which oftentimes results in the case of newborn infants from the irritation due to the accidental introduction of a particle of the vernix caseosa, or some other foreign matter between the eye-lids. Observing the method of Neisser, no difficulty need be experienced in the recognition of the cocci upon the presence of which the contagious property alone depends.

Dr. Reynolds then exhibited microscopical specimens of the different bacilli and gonococci, assisted by Dr. B. F. Johnson, of Winchester, using the Bausch and Lomb professional stand and hom. imp. objectives.

Many other recent improvements or advances in the science of pathology deserve to be noticed, but time and the opportunity do not permit a more extended report.

On motion the Society adjourned till 9 o'clock A. M., June 24.

THURSDAY MORNING.

The Society was called to order, June 24, at 9 o'clock, by the President, Dr. Thomas.

The Committee on Nominations then reported as follows:

For President, Dr. William H. Wathen; First Vice-President, Dr. John M. Harwood, of Shelbyville; Second Vice-President, Dr. Isaac H. McKinley, of Winchester; Permanent Secretary, Dr. J. Steele Bailey, of Stanford; Assistant Secretary, Dr. F. C. Simpson, of Bardstown; Treasurer, Dr. Edward Alcorn, of Houstonville. Board of Censors, Dr. Dudley S. Reynolds, Chairman, Louisville; Dr. S. W. Willis, Winchester; Dr. Andrew Sergeant, Hopkinsville; Dr. James H. Letcher, Henderson; Dr. M. E. Poynter, Midway; Dr. J. M. Harwood, Shelbyville. Chairman of the Committee of Arrangements for the next meeting, Dr. J. G. Brooks, Paducah; Place of meeting, Paducah, Ky. Time, third Wednesday in June, 1887.

On motion the report of the Committee was unanimously adopted.

The newly elected President, Dr. W. H. Wathen, was loudly called for. He modestly tendered thanks for the high compliment paid him, pledged his best efforts to uphold and maintain the high standard of usefulness which has so long characterized the deliberations of the State Society. He spoke a good word for the International Congress of 1887, and hoped every member of the profession in Kentucky would bestir himself, each one, to do his part toward the success of the Congress.

DISCUSSION

OF THE REPORT

ON PATHOLOGY.

On motion of Dr. Pinckney Thompson, of Henderson, the discussion of the report

on pathology was taken up.

Dr. Frank C. Wilson, of Louisville, thought the report of Dr. Reynolds covered important ground, and demanded the most serious consideration by the profession. It opened up so many new facts in old fields, and presented so many important questions, the discussion of which must lead us into new fields of research, that the time of the Society could not be better occupied than in the fullest consideration of these matters. While he did not quite understand the views expressed in the report as to the influence of heredity, he thought Koch's discovery of the bacillus of tubercle the most important advance yet made in the study of the etiology of disease. While it is true, as shown in the report, that consumption is undoubtedly a contagious infection, and may not fairly be attributed to heredity when occurring in adults, yet heredity had in a more or less direct manner much to do in determining general tuberculosis. While he was free to admit consumption in the adult is not inherited, yet the condition of the system which is favorable to the development of consumption amounting in many cases to a well marked diathesis is unquestionably due to heredity. The contagious nature of con-

sumption has been established beyond question, yet we may not always be able to know the origin of the attack in individual cases. He looked with great interest and increasing hope to the experiments with specifics for the arrest of the growth of the bacillus, and for increased facility of expulsion of such matters as contain it. He hardly thought we might expect to find an agent capable of destroying the microbe with entire safety to the patient.

He thought the subject of typhoid fever of nearly equal interest, yet he would forbear further discussion in the hope to hear from others present.

Dr. Pinckney Thompson, of Henderson, had hoped Dr. Wilson would take strong ground against the report on the subject of typhoid fever. As to the matter of consumption, he would not discuss that, as he thought the subject had received more attention than it deserved at this time. He does not believe the cause of typhoid fever has yet been discovered. In cities, he says, it would be difficult to find a case of typhoid fever which could not be traced to some pre-existing case, because the disease is so generally prevalent; but he has seen isolated cases in country districts where no previous case had existed at all, within a range of many miles, where it was impossible for the disease to have been the result of any pre-existing case. He knows it has originated spontaneously from the decomposition of straw and old potatoes in the cellar, and has seen cases clearly due to the decomposition of vegetable and animal matters about the house. He thinks the cause is more likely in the air than in the water.

Dr. Wm. Bailey, of Louisville, thought the auracular statements of Dr. Reynolds concerning the cause of consumption disarmed discussion. He had not undertaken himself, by original experimental research, to settle the much disputed question of the germinal origin of tubercle. To his mind the germ theory of disease is the most plausible yet presented, but like all new

theories it is likely to undergo many changes, and he prefers, for the present at least, to hold the whole matter *sub judice*. He is convinced, however, we can not dismiss heredity as a cause of consumption with a wave of the hand, nor can we easily convince insurance companies that the question of heredity should be dismissed or omitted from their list of questions to the applicant. There are many points in the report which he would like to discuss; but, for the present, he is content to utter his warning against hasty conclusions.

Prof. Jas. T. Whittaker, of Cincinnati, said, in considering the hereditary nature of tuberculosis, we should inquire whether it is the disease which is inherited or is it the soil? We all know that most persons have at some time during life had one or more attacks of tuberculosis. If the soil is not fertile, the seed will not grow to any alarming extent; if the soil be fertile, however, and the seed be planted, which of course must be done by inoculation, upon an abraded surface, or in some similar manner, rapid development will follow.

Of course no one now questions the inoculability of the bacillus tuberculosis. It has been proven over and over again, and any one who doubts this may introduce a small quantity into the aqueous humor of the eye of an inferior animal, and watch every stage of its development. If the disease is inoculable, it must of course be contagious. Now if we inherit a state of system in which the soil or lymph suited to the growth of the bacillus tuberculosis is abundant, we have only to be inoculated with this bacillus to have tubercle in a dangerous form.

There is no disinfectant like ventilation. We often derive advantage from the use of those horrible drugs called disinfectants by being obliged to throw open the windows and doors to get rid of the odor of the drug. The only safe means of treating a case of tuberculosis is by isolation and by the destruction of the sputum, which

should either be burnt or expectorated into a jar of bichloride of mercury. It is now the custom in Europe, especially in Germany, to isolate all the tuberculous patients from other person, yet we go on in the most reckless manner, permitting tuberculous subjects to mingle freely with the sick and well alike. As to the question of heredity, it is about settled; the child never inherits any disease from its father directly, and he thought the paternal side of the family should be excluded in any well-recorded family history of predisposition to disease. As to the pneumatic differentiation, its full value is in ventilating the lungs, so to speak. It increases the dilatation of the air passages, and therefore facilitates expectoration, which is a great thing in the treatment of the early stages of pulmonary consumption. Next to a residence on a high mountain top in Colorado, which is the best place on earth for consumptives to go, the pneumatic cabinet affords the best opportunity for free ventilation of the lungs, by reducing the pressure of the atmosphere on the outside of the body. The increased pressure of the air inspired produces a degree of freedom of inspiration which no muscular movement could accomplish. The pneumatic cabinet, however, he would insist, should never be substituted for the mountain top. As to the treatment, there can be no question of the value of sterilizing pulmonary excretions while yet in the air passages. In order to limit the growth of the bacillus, arsenic and the bichloride of mercury have been given in the form of spray, and at the same time internally, with remarkable effect; of course good feeding, an active and healthy skin, with free, out-door exercise, are of first importance.

Dr. J. N. McCormack, of Bowling Green, thought if expectorated matters endangered the safety of other persons in the same room, it was criminal in the profession not to destroy these matters before contamination of the atmosphere could take place. He referred to the recent action of the National

Board of Health, directing the thorough disinfection or destruction of the stools of typhoid fever patients, and every thing which could possibly carry the germs of the disease. The same precaution was directed also in regard to cholera. He believed bichloride of mercury to be the only safe disinfectant next to cremation, which, of course, must always hold the first place. He thought the report on pathology was the most important matter that had been introduced at this meeting of the Society, and probably the most important that would be introduced. He wanted to hear every body discuss it, for the more it was talked about the stronger the probability of some good coming from it.

Dr. E. R. Palmer, of Louisville, said the most important question raised by this discussion was that of heredity. He inclined to think the pendulum of public opinion had swung too far; that, while it might be safely admitted tuberculosis is not so often inherited as we formerly supposed, we inherit the soil, and while we are all constantly inheriting the germs of tuberculosis, only those of us who have that inherited soil, so to speak, are likely to suffer from general tuberculosis. That point, however, seemed to him pretty clearly covered in the report of the committee, which to his mind left few, if any, gaps to be closed. He would add, however, his testimony to that of Dr. Whittaker, that the father can not transmit a specific taint; he furnishes the nucleus only of what is to become the cell which is to grow into the new being, and in this nucleus there may be an inherent weakness. Further than this the father may infect the mother or not, and upon this point alone depends the chances of infection of the foetus.

Dr. Thad. A. Reamy, of Cincinnati, wished to have this clinical fact cleared up, viz: So long as the wife is not pregnant she is safe; it is only when she becomes pregnant that she is syphilized. He had known the father to propagate the disease ten years after the disappearance of all symptoms.

Dr. Reynolds being called upon to close

the discussion, said he felt thankful for the compliment paid his report; that he believed all the objections which had been urged against any of his statements had been fully answered in the discussion. He might add, however, the statement that those gentlemen only who have undertaken no original investigations remain to be convinced of the truth that tuberculosis is due to the bacillus of Koch, and it is caused by nothing else; that it is most liable to attack the subjects of the so-called strumous diathesis, whether this diathesis be acquired or inherited. He would emphasize the statement that syphilis, like tuberculosis, can be transmitted from one person to another by direct inoculation only. It is never found in the secretions which have not passed over an abrasion in their exit from the system. There must be actual contact of lymph or blood serum. No gland in the body separates either the bacillus tuberculosis or the microbe of syphilis from the blood or the lymph. The father can transmit to his offspring absolutely nothing except tendency to form and character of development. The moment any disease germ is brought into contact with a spermatozoon the spermatic cell perishes. It is absolutely impossible for the germ of any kind of disease whatever to accompany the spermatozoa into the ovum without destroying both.

The great lesson to be learned from the report, and its discussion, would seem to be this: We can prevent tuberculosis, typhoid fever, and many other forms of contagious disease by destroying the media through which they are carried from one person to another.

On motion a committee of five was directed to formulate a plan, to be recommended to the profession for general adoption, by means of which the sputum from tuberculous patients and the excreta from typhoid fever cases may be effectually destroyed.

Dr. M. T. Scott, of Lexington, reported on the Progress of Surgery. The report contained a brief *resumé* of recent literature on

gun-shot and stab wounds, suggesting that laparotomy is scarcely admissable in all penetrating abdominal stab-wounds. Gastrotomy for relief of malignant disease was dwelt upon at some length. At the conclusion of this report, Dr. D. W. Yandell arose and said: In considering gun-shot wounds of the abdomen the size of the missile must first be noted. He thought the statement of Otis, that the man who gets a Minie-ball through the small intestine dies, is strictly true. Hence, Dr. Yandell always endeavors to learn, when called to a shot injury, what manner of gun was used. Unless urgent symptoms demanded, he should say, "don't open the belly in penetrating wounds of any kind." Dr. Yandell expresses his disappointment in the use of *cocaine* in *cystitis* and operations on the *urethra*.

Dr. J. G. Brooks, of Paducah, presented a brief report of the case of a lad, eleven years of age, who had been stabbed in the abdomen with a Barlow knife. A large piece of the intestine protruded, the patient was pallid, nearly pulseless, retching, and seemed to be rapidly approaching a state of collapse. An incision was made in the *mediastinum*. When the peritoneal cavity was reached, a sudden spurt from a wounded vessel of the mesentery disclosed the cause of the extreme depression of the patient. About a pint of accumulated blood was let out, the bleeding vessel tied, the intestine washed with warm antiseptic water, and returned; stimulants were administered hypodermically; improvement and rapid recovery followed.

Dr. Joseph N. McCormack, of Bowling Green, referred to a case which he reported to the State Society nine years ago, in which he had removed a section of the intestine for the relief of gangrene due to injury. The patient made good recovery and still enjoys excellent health.

The report on the Progress of Practical Medicine, by Preston B. Scott, was read by Dr. J. W. Erwin. The paper was quite comprehensive.

DISCUSSION.

Dr. Whittaker, of Cincinnati, thought intubation of the larynx could never become a substitute for tracheotomy in the treatment of spasm, nor in any form of croup. In his experience the operation is formidable and even dangerous. It might be done in diphtheria after all sensibility in the larynx has ceased, but in no other class of cases would he again think of trying it. Dr. Whittaker thinks that spasm of the larynx should direct attention to a state of general debility due to malnutrition in infants who are soon to become the subjects of "rickets." He has found that diarrhea, alternating with constipation, often sweating and restlessness, make up the symptomatology of the early stages of rickets, which should be treated early with cod liver oil and phosphorus, phosphorus being the urgently demanded specific. As to fevers, he thinks the professional world is now undergoing a great change concerning the high temperature. It being settled that typhoid fever is due to specific micro-organisms, it would appear that high temperature serves the purpose of attenuating the virus, and he questions, therefore, the propriety of resorting to extreme methods of antipyresis.

Dr. Wm. Bailey believed that intubation of the larynx had been successful in the hands of those who have urged its adoption. He thought that in the hands of the average general practitioner it would prove to be a less formidable operation than tracheotomy.

Since hearing the report of the personal experience of Prof. Whittaker, he will hesitate and will be inclined to call for the aid of the surgeon. He will not take up time upon the question in connection with tricuspid regurgitation.

He begs leave to take issue with the essayist in that part of his paper devoted to pyrexia. He is not at all inclined to think that all fevers are symptomatic of some inflammation. He would give prominence in the definition of fever to a nervous factor by the influence of tissue which change may

be increased or a diminution of lost heat occurs; in either case an elevation of temperature takes place. He believes that pneumonia is an essential fever which runs an indifferent typical course not always in relation to the cause of the local manifestation in the lung. He believes that typhoid is an essential fever and not dependent upon the lesion in the bowel for its pyrexia. These fevers are typical and altogether different from that fever due to a boil, abscess, etc. We have in variola first a typical essential fever independent of the local inflammation in connection with the eruption, and is often as great in varioloid as in variola. Yet in the one we have subsequently a non-typical symptomatic fever due to the lesion in the skin, it being in proportion to and proceeding *pari passu* with the inflammatory processes, and in varioloid we have, as a rule, no secondary fever, because there were no processes going on to cause it, because the eruptive processes were averted at this point. To his mind there is clearly shown to be in these fevers an essential cause operating upon the blood and nervous centers, producing the pyrexia, and not always local inflammation to which it may be referred.

Dr. J. A. Larabee, of Louisville, referred to frequent publications of his on the subject of rickets. He thinks that the early stages of this disease are too seldom recognized until it is too late to adopt the really curative methods of treatment. He says the disease prevails more extensively now than ever, since many children are thrown upon the world like Romulus and Remus, to be brought up on that modern wolf—the nursing-bottle. The origin of rickets is unquestionably in the intestinal canal. There are no specific drugs; hygienic surroundings are all-important, and attention to the general state of the digestive organs, in selecting nutritious food, and such forms of exercise as tend to amuse the child are the only rational modes of treatment.

On motion the Society adjourned till two P. M.

AFTERNOON SESSION.

The Society was called to order, by the Vice-President, Dr. Isaac H. Sherley.

Dr. David T. Smith, of Louisville, read a paper on some Moot Points in the Mechanism of Labor. He accounts for the more frequent presentation of the head, upon the supposition that the *fœtus in utero* performs a movement like that of swimming in water. As this movement is confined chiefly to the feet, the head naturally seeks the bottom of the *viscus*, where there is less room for the limbs to perform the kicking motion common in swimming. He does not believe in Credé's method of placental delivery.

Dr. J. M. Harwood, of Shelbyville, read a paper on the Third Stage of Labor, in which he advocated prompt removal of the placenta in all cases. (See page 63).

Dr. W. H. Wathen, of Louisville, said this method should be practiced to prevent hemorrhage and septicemia. The moment the child is born, the hand should press upon the abdomen until the *uterus* is contracted, which, aided by gentle friction externally, may be sufficient to expel the placenta. By holding the hand immediately over the uterus relaxation can be at once detected and the uterus made to contract by friction or massage, preventing what might otherwise be severe or fatal hemorrhage. He never allows the membranes, in labor or in abortion, to remain in the uterus more than twenty minutes. He prefers Credé's method, and is careful not to express until the uterus contracts. Many practitioners confound Credé's method with the Dublin method, and use expression before the uterus has time to contract. He did not advocate pulling upon the cord, but was not opposed to drawing gently upon the edge of the placenta as it protruded through the os. He could hardly imagine a case in which expectation would be indicated, or should be practiced.

Dr. John G. Cecil, of Louisville, dissented from the views of the essayist as traction on the cord. He described Credé's method,

to which he inclined to adhere, believing it to be the best method of removing the placenta, and of preventing post-partum hemorrhage. He does not believe the cord should be divided until pulsation has ceased, for it deprives the child of from one to three ounces of blood, which is of great value to the subsequent development of the child.

Dr. Turner Anderson, of Louisville, wished to condemn the rapid placental delivery. Increasing experience diminishes the tendency to interfere with the course of nature, except in such cases as plainly show symptoms which indicate the nature as well as the time for manipulative interference. When he is obliged to assist his patient he prefers Credé's method.

Dr. Thad. A. Reamy, of Cincinnati, thinks the adoption of Credé's method has done much mischief throughout the country. He thinks it exceedingly bad practice to hasten the expulsion of the placenta; no hemorrhage will occur while the cord pulsates. It is always safe to wait until this ceases; when the cycle of uterine activity is complete, contractions will usually appear. He thinks much mischief arises from the early manipulative interference with nature's law.

The true science of obstetrics is marvelous in its limits and simplicity.

Dr. J. B. Marvin, of Louisville, read a clinical report of a case of Progressive Muscular Atrophy, beginning in the legs. The subject was a gentleman twenty-eight years old, strongly built, florid complexion, six feet high, weighing 170 pounds; born and raised on a farm; has no inherited temperament, never indulged in any dissipation or excesses, perfect family history, was never sick until he was twenty years old, when he had an attack of dysentery. Shortly after recovery, while plowing in the sun, he was seized with nausea and vomiting, followed by a fever, loss of appetite, general weakness, and a feeling of exhaustion, which prevented his re-engaging in farm work for a period of three weeks; there was no time

during this attack at which he could not stand or walk at will. Subsequently, however, he does not remember just how soon, he discovered an awkwardness in the movement of his legs, especially in trying to run or jump; this gradually increased until he found it impossible to raise himself and stand upon the toes. He never suffered with pain or other abnormal sensation. He observed considerable reduction in the size of the calves of the legs. He has recently observed an aggravation of his nervous phenomena with pains in the back, and cramps in the thighs and hands. His hands and arms were well developed and powerful. His legs are now flat posteriorly. Progressive muscular atrophy beginning in the lower extremities is rare. Duchenne observed it twice in 159 cases. The paper was carefully written and brought out approving criticism from Drs. D. W. Yandell and Joseph Ransohoff.

Dr. J. Morrison Ray made the report on Otology. He referred to punctures of the external drum head in the treatment of chronic catarrhal deafness. He questioned the value of the practice, but spoke more encouragingly of the division of old cicatrices. He next spoke of syphilitic caries. Passing on to the consideration of the malarial diseases of the ear, which he considers, upon the evidence collected by Dr. Pomeroy, have no existence. Dr. Ray discussed the local anesthetic powers of cocaine, brucine, and carbolic acid, and compared boric acid with iodol in the treatment of suppurative otitis, according to the iodol the superior place in therapeutic value. Dr. Ray's report was well written, although he introduced but few points for discussion.

Dr. Jos. M. Matthews, of Louisville, in his report on diseases of the rectum divided his subject into

1. Operations for cancer of the rectum.
2. Operations on the rectum under whiskey.
3. The sphincter muscles in disease.
4. A new operation for fistula in ano.

He formulates the lessons derived from his experience as follows:

"First," says he, "I do not believe that cancer is hereditary, hence its appearance in families as shown by family history is in my opinion purely by chance.

"Second, in my experience scirrhus cancer has been the form most often met with in the rectum, and not epithelioma, as taught by the authorities.

"Third, I do not believe that colotomy is justifiable for cancer of the rectum.

"Fourth, in my own observation, which covers many cases of cancer of the rectum, the disease has occurred in the majority of patients under the age of forty years; in two instances under twenty years.

"Fifth, in the majority of cases observed by me, the symptoms recited by authors as being characteristic, if not pathognomonic, were absent, viz., excessive pain hemorrhage and odor.

"Sixth, I do not believe that the facial expression of the patient, which is dwelt upon with so much stress by authors, ever exists, save as the result of fear and anxiety about their condition.

"Seventh, if the cachexia of cancer exists, I do not believe that life is ever prolonged by any operation, except it be to overcome obstruction in the bowel.

"Eighth, in cases of cancer beyond all cure, I believe that we are justified in giving sufficient opium to quiet pain, if pain exists, even at the risk of establishing the opium habit."

He then proceeded to report some cases illustrative of the experience enunciated, concluding his exhaustive and admirably written report with an account of a new operation for Fistula in Ano. (For details the reader is referred to *PROGRESS*, page 20.)

Dr. Allen Kelch then read a carefully prepared paper on the cause of Regular Astigmatism (see page 59).

Dr. Jas. H. Letcher, of Henderson, reported an interesting case of mania, following cataract extraction, in the person of an

old gentleman previously in good health. The mania was relieved by morphia. It was thought possibly to have resulted from the effects of a solution of sulphate of atropia, or it may have come from the pressure of the bandage, it was difficult to say. The case presented several rare features. (We regret our reporter could not secure the paper for publication).

Dr. Jno. G. Cecil, of Louisville, read a paper on Puerperal Fever. He proposed to crown Phillip Semmelweis as a great benefactor of humanity, who first introduced a feasible method for preventing puerperal fever; a contagious infection, not difficult to prevent, but well nigh impossible to cure. He considers many cases have resulted from the meddlesome interference prevalent in the lying-in chamber. The key note of the great improvement, in fact it may be said the disappearance of mortality records in puerperal fever, is antiseptic irrigation. As antipyretics, Dr. Cecil ranks quinine first, salicylate of sodium second, and thinks antipyrine promises to be of great value. Opiates, without stint, are to be used to control pain and mental emotions.

The Society then adjourned to meet at 8 o'clock P. M.

THURSDAY, JUNE 24TH, 8 P. M.

Society called to order by the President, Dr. J. P. Thomas, in the chair.

Dr. John A. Larrabee, of Louisville, read a paper on "Pediatrics." The doctor stated that he had concluded to write a series of papers "upon some of the evils existing in society which affect infantile health and mortality," and he hoped the Society would accept the subject in lieu of the customary report upon pediatrics which he had made from year to year. He announced the subject of the present paper as "Infantile Syphilis." A large part of the paper was devoted to showing the increasing importance of inherited syphilis, and the havoc it plays in the future health of the offspring. He dwelt largely upon mediate contagion, citing in-

stances from the drinking-cup of the ward-school—the tin harp, chewing gum, etc., and laid great stress upon kissing in the nursery, and by females as a form of greeting. The peculiar latency of the disease received a very proper share of attention. He advocated legislation on the subject of syphilis, and was fully aware that such legislation must be the result of education, and that it was the duty of medical men in society meetings to agitate a question which concerned the public health far more than small-pox, cholera, yellow fever, or *hydrophobia*. Fully two thirds of all the children presented at his clinic were subjects of inherited syphilis. On the subject of licensing prostitution, the doctor stated the plan in operation in St. Louis for one year only had lessened the prevalence of syphilis in that city thirty-five per cent; and yet it was cried down by the clergy.

Dr. Ap Morgan Vance, of Louisville, read a paper on Orthopedic Surgery, in which he took strong ground against Sayre's jacket in the treatment of spinal disease. He then proceeded with some clinical experiences in the treatment of hip disease, with some reports of subtrochanteric osteotomy.

Dr. Vance's report was elaborate and practical.

Dr. George W. Ryan, of Cincinnati, thinks the thanks of the profession are due Dr. Vance for his broad definition of the work of the Orthopedic Surgeon.

Dr. Ryan does not subscribe to the views of Dr. Vance concerning the treatment of lateral curvatures of the spine.

The society then adjourned to the Banquet Hall, where a pleasant evening was spent in speech-making and general hilarity. No liquors were served. The chief stimulant of the occasion being supplied by the keen wit of Mr. Oren Denison, known to the medical profession as Dr. O. D. Todd, of Eminence. Dr. Todd is the best post-prandial speaker in Kentucky, a natural result of the annual Burgoo at Eminence, where he has long enjoyed the distinction

of being the leading surgeon, philanthropist, and orator of Central Kentucky.

FRIDAY, JUNE 25TH, A. M.

Society called to order at 9 o'clock, President Dr. Thomas in the chair.

Dr. A. B. Thrasher, of Cincinnati, made a clinical report on Aphonia (which we have in type).

A paper on the Abortive Treatment of Insanity, by Dr. John M. Foster, of Richmond, was presented by title and referred.

Dr. L. C. Wagner, of Nicholasville, presented a paper on Intestinal Obstructions, which was read by title and referred.

Dr. John L. Taylor, of Warren, reported a case of comminuted fracture of the skull, produced by the kick of a horse. The area of fracture was two and one half inches. The fragments of bone were removed and the patient made a good recovery.

Dr. Robert N. Pfeiffer, of Louisville, exhibited an ingenious device for the after treatment of cases of tracheotomy, which was highly commended by Drs. Larrabee and Wilson, of Louisville, both of whom had had experience in the use of the device. Dr. Pfeiffer presented also an articulated obstetrical forceps, which met with the favorable consideration of the Society.

The Secretary then read a list of the Standing and Special Committees appointed by the President to report at the next annual meeting.

Dr. T. B. Greenley, of West Point, read a paper on Post-partum Hemorrhage, which, after discussing the literature of the subject in brief, concluded with the recital of five cases occurring in his own practice.

Dr. J. Addison Stucky, of Lexington, read an interesting clinical report on Rhinology, which was discussed by Drs. Foster, of Richmond, and Ray, of Louisville.

Dr. E. Von Donhoff, of Louisville, read a paper on a New Method for the Rapid Treatment of Fractures (see page 55).

Dr. Sam E. Woody, of Louisville, read a carefully prepared clinical paper on Electro-

lysis, illustrated by an exhibition of a new electrode and needles. He detailed some interesting experiences in the destruction of hair bulbs by electrolysis. Dr. Woody uses the ordinary LeClanche battery, which, with his small electrode, proves more satisfactory than some of the larger and more expensive batteries.

The following resolutions, offered by Dr. R. L. Willis, of Lexington, were unanimously adopted :

WHEREAS, the code of ethics of the American Medical Association constitutes a part of the organic law of the Kentucky State Medical Society ; and

WHEREAS, the code of ethics especially forbids the publication of clinical reports in the secular press,

Resolved, That any member of the Kentucky State Medical Society, or of any auxiliary local society, who shall publish or permit to be published in the secular newspapers any paper or essay, prepared for or read to this or any auxiliary local society, without especial permission of the society aforesaid, shall be deemed, on conviction thereof, guilty of a breach of professional etiquette, and of a violation of the rules of this Society, and may be reprimanded or expelled from membership.

On motion of Dr. Dudley S. Reynolds, of Louisville, the following resolutions were adopted :

Resolved, That the Committee of Arrangements and Reception are entitled to the grateful thanks of the Kentucky State Medical Society for one of the most agreeable and profitable meetings ever held in the history of our organization.

Resolved, That we hereby tender our thanks to the profession and the good citizens of Winchester for their generous hospitality.

Resolved, That we tender our thanks also to the President for the faithful discharge of his difficult duties in presiding over our deliberations.

Resolved, That we hereby express our thanks to the gentlemen in charge of the various exhibits for bringing their choice pharmaceutical and surgical appliances so attractively and conveniently to our attention.

Resolved, That we go from Winchester with a renewed sense of our obligation to maintain the strength, and uphold the dignity and the honor of our profession ; and that we look forward with feel-

ings of patriotic pride to the coming of the ninth International Medical Congress at Washington in 1887, and that we will do all in our power to foster the spirit of organized effort, to promote original research, scientific discovery, and the promotion of feelings of amity in the whole profession.

Resolved, That we thank the railroads for their generous reduction of fares.

On motion the salary of the Secretary was increased to \$100, beginning with the present session.

The Secretary then read the list of delegates appointed to attend the meeting of the American Medical Association in 1887.

Dr. A. W. Smith, of Chicago, presented resolutions adopted by the exhibitors present for courtesies during the meeting.

Mr. J. W. Lambert, of St. Louis, graced the attendance by his genial presence, which always adds a charm when sanitary medicine is mentioned.

Amid universal expressions of fraternity, the Society adjourned to meet at Paducah, the third Wednesday in June, 1887.

TREATMENT
OF PURULENT
OPHTHALMIA.

In the treatment of all acute purulent inflammations of the conjunctiva it is important to note the fact that the element of contagion can not be destroyed by any thing which would not destroy at the same time the conjunctiva and the cornea. The great point to be gained is to sterilize and keep sterilized the surface fluids so as to prevent the growth and development of the cocci.

It has long been known that gonorrheal pus possesses an acid reaction on contact with litmus. This fact suggests at once the nature of the sterilizing agents. Carefully observed and faithfully recorded experience shows that solutions of borax, the carbonate and the chloride of sodium, each, when used singly, or in various states of combination, prove efficient in the treatment of gonorrheal ophthalmia, when used persistently from the first, and at short intervals.

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A GREAT WESTERN MEDICAL ASSOCIATION

Proposed to be formed at the meeting of the Mississippi Valley Medical Association, at Crab Orchard Springs the second Wednesday in July, 1887.

It is conceded there ought to be a general association of the profession in all the States and Territories west of the Alleghany mountains. The Mississippi Valley Medical Association

has set about the work of forming such an organization. At the meeting at Quincy, Ill., on the 14th of July, a resolution adopting the code of ethics of the American Medical Association was passed with but two dissenting votes. Subsequently a resolution inviting the regular profession of the entire West and South to meet at Crab Orchard Springs the second Wednesday of July, 1887, was unanimously adopted. If all the State, district, and local societies embraced within the territory named will send delegates to the Crab Orchard meeting, a great organization in the interests of the profession of the largest and best part of the United States may be effected. The arrangements for the comfortable assembling of a large body of members and delegates will be ample, at one of the most delightful and popular summer resorts in the country.

This is, in view of the recent organizations in the East, and on account of the approaching International Medical Congress at Washington, in September, 1887, a sort of campaign year in the medical history of the country. We have many of the best investigators in every field of medicine and

surgery in the West, whose labors have been known heretofore chiefly through the societies and journals of the East. We now have so large a body of professional men in the West, a majority of whom have been educated in western schools, that it would seem necessary to have a great western association, holding annual sessions for the consideration of scientific and other professional matters, which it is not always convenient or practical to consider in either the local, State, or American medical associations. With such a body divided into sections our specialists need no longer be obliged to go East to meet those of their brethren with whom it is most desirable to exchange views on questions of a professional nature. *

THE KENTUCKY SCHOOL OF MEDICINE.

The Kentucky School of Medicine had the misfortune to

lose by fire on the 10th of June its entire premises and outfit. It has now secured the commodious and elegant building on Sixth street, long known as the Presbyterian Normal School. The lot is 200x210 feet. The building is a large three story substantial brick structure admirably adapted to the purposes of a medical college.

THE HOSPITAL COLLEGE OF MEDICINE.

The Curators of Central University of Kentucky, at a recent meeting, directed the architect, Mr. Chas. Clarke, to proceed at once to have the new buildings for the enlargement of the Hospital College for the accommodation of the Dental department erected. This is to form a well equipped Dental college, in connection with the Medical department of the University.

At the Winchester meeting of the Kentucky State Medical Society, Prof. Jas. T. Whittaker said he had felt obliged to conclude intubation of the larynx can never take the place of tracheotomy, either in croup or diphtheria.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

THE annual meeting of the Kentucky State Society, at Winchester, invoked a display of physicians' specialties, and supplies that made the hall resemble a miniature exposition. The firm of Parke, Davis & Co. were ably represented by Messrs. Ballermann and Odena, the latter, being the possessor of a remarkably fine tenor voice, gave after each session impromptu concerts, which were among the most agreeable features of the meeting. Messrs. Wyeth & Bro., of Philadelphia, had a genial representative in the person of Mr. Hubbard. Wm. R. Warner & Co., of the same city, presented their samples through the very gentlemanly A. D. Roach. And Messrs. Chapman & Green, of Chicago, had a talker on the floor, clerical in appearance, and an admirable button-holer. The instrument makers were present in force; Tafel Bros., and Adolph Fischer, of Louisville, each showing an assortment creditable to their establishments, and receiving many favorable comments.

The California Fig Syrup Co. distributed bottles of their preparation at the door of the hall. And the house of H. McKenna presented each physician with a sample of their old medicinal whisky.

Mr. C. P. Frick looked after the interests of Messrs. R. A. Robinson & Co., of Louisville, and loaded the doctors liberally with samples of the specialties for which the firm is becoming famous.

Arthur Peter & Co., of Louisville, had an imposing display of their Syrupus Roborans, in charge of Mr. Frederick Voigt, whose samples were eagerly sought after. And Mr. J. A. Flexner, of the same city, held the fort in person, with his many specialties. The efforts of the representa-

tives of the numerous firms made the display one of the best a State Society has ever been honored with, and the professional gentlemen who accepted their liberal courtesies should certainly for their own enlightenment, give to the goods they carried home intelligent examination and trial. Each physician was presented with the initial number of "PROGRESS," and the publisher is glad to announce that none were cast aside or left behind. The subscriptions were liberal and unsolicited, and "PROGRESS" we think has to-day a larger audience among the profession in Kentucky than any other medical publication.

I HAVE prescribed DAVID NICHOLSON'S PURE MALT EXTRACT, commonly known as Liquid Bread, for two years, and re-affirm my estimate of its most excellent action upon the system, as stated on a former occasion. Its nutritive qualities for the sick and debilitated are beyond comparison with other preparations from the same materials. Its action is shown by the increasing strength and weight of the patient. The agreeable form of the preparation renders it especially valuable for sick infants and nursing women.

LOUIS BAUER, M. D., M. R. C. S., Eng., Prof. of Surgery, Consulting Surgeon to City Hospital, etc., St. Louis, Missouri, July 1, 1886.

A. M. CHORD, M. D., Logansport, Indiana.—Peacock's Bromides is a valuable remedy, and I can heartily recommend it to the profession where the use of such a preparation is indicated. It takes the place in our list of remedies that has long been needed. It is all that is claimed for it.

A PROMINENT grocer of Louisville, Mr. A. J. Ross, remarked to the publisher of PROGRESS, that Nicholson's Liquid Bread had met with very flattering success in Louisville. That his customers spoke very highly of it, and that he used it with the best of results in his own family. This ought to be a valuable and trustworthy endorsement.

MEMBERS OF THE MEDICAL PROFESSION WILL HAVE A PLEASANT LOUNGING PLACE AT THE SOUTHERN EXPOSITION IN THE OFFICE OF "PROGRESS," WHERE THEY WILL FIND OUR EXCHANGES, BOTH DOMESTIC AND FOREIGN, FOR READING OR REFERENCE, AND AN ATTENDANT WHO WILL BE PLEASED TO GIVE THEM ANY DIRECTIONS OR INFORMATION THEY MAY NEED.

SINCE beef-tea, which for a long time was the chief nourishment afforded the sick, has been looked upon with less favor, a rational study of the question of condensed nutriment has resulted in the preparation of a variety of excellent foods, among which we may specially mention *powder of beef* and *peptonized extract of beef*, prepared by Messrs. Parke, Davis & Co.

A great advance in the dietetics of the sick-room was also made when pharmacists placed before the medical profession the means of conveniently peptonizing and predigesting various foods at will. Thus, with the peptonizing and digestive tablets furnished by the pharmacists mentioned above, such food as milk, gruel, oysters, wine jelly, etc., may be peptonized by the physician or nurse prior to administration. Without disputing the rôle played by drugs in modifying the course of disease, most thoughtful observers will grant that their place in the cure of disease scarcely ranks higher than that of carefully selected nutrients, and that, other things being equal, that physician treats his patient most successfully and acceptably who selects for him a palatable and nutritious diet suited to the stages of his malady.—[*N. Y. Medical Journal*, March 6, 1886.]

I WOULD respectfully suggest that Drexel's Malt be introduced into the Philadelphia Hospital Obstetrical Department and Nursery. The samples sent for trial gave satisfaction.

JOHN M. KEATING.

March 19, 1886.

OUR friends South and Southwest will consult their interest by corresponding with Messrs. Hernstein & Prince, St. Louis, in reference to improved instruments, appa-

tus for deformities, etc. Mention PROGRESS.

THE page of this number next back cover is occupied by the announcement of Messrs. Parke, Davis & Co. The older practitioners all know, and the younger ones should be possessed of the same knowledge, that they are a liberal, reliable, and enterprising house, and their products have a reputation world-wide and richly merited. We trust the friends of PROGRESS will test its indorsement of the firm liberally and often.

STUDENTS will find the store of Messrs. Wallace & Cochran a general resort for those seeking stylish and exclusive styles in neck-wear, hosiery, etc. Their laundry is very extensively patronized, and they claim it is the best in Louisville.

MR. GEO. A. NEWMAN, agent for the Eastern department for California Fig Syrup Co., has received very pronounced indorsements from the medical profession in Louisville, and desire to have practitioners, who have failed to test the preparation, write to him for samples. Mention PROGRESS.

THE Syrupus Roborans of Arthur Peter & Co., is rapidly attaining a recognized place among physicians, and is prescribed with flattering success. It is one of the best brain and nerve foods extant. They will send you a sample on application. Mention PROGRESS.

THE house of McKesson & Robbins is one of the oldest, largest, and best in the country. Their advertisement of a new emmenagogue in this issue should be read with attention.

MESSRS. B. KEITH & Co. advertise their dyspepsia compound and nerve stimulant.

MESSRS. WURACH & SCHOLZ have the largest and most comprehensive stock of "good goods" in Louisville. They handle nothing adulterated, and sell nothing they can not conscientiously recommend. It pays in the long run, both physically and morally, to deal with such a house.

OUR EXCHANGES WILL DO THEMSELVES AND US A FAVOR BY MAILING TO OFFICE OF "PROGRESS" 235 AND 237 THIRD AVENUE, LOUISVILLE, EXTRA COPIES OF THEIR PUBLICATIONS FOR THE MONTHS OF AUGUST, SEPTEMBER, AND OCTOBER, FOR USE OF THE MEDICAL FRATERNITY AT OUR OFFICE IN THE SOUTHERN EXPOSITION BUILDING. THE JOURNALS WILL BE PLACED ON FILE, AND PROPERLY CARED FOR.

THE AMERICAN ACCIDENT CO. wants agents—through the South. Address the Secretary, J. B. Wells, 408 W. Main Street, Louisville, Ky.

PHYSICIANS are invited to write Hall & Ruckel, 218 Greenwich Street, New York, for samples of LYONS' TASTELESS QUININE Preparations. They will be sent free. Mention PROGRESS.

WE published in our last issue the directions for using Barry's Clinical Thermometer; it is very popular with the profession.

A. L. ANDERSON, M. D., Rhea Springs, Tennessee.—I have the pleasure to say that I have used Peacock's Bromides with entire success in vertigo and congestive headache in the case of my wife. It is the best brain and nerve sedative I ever used.

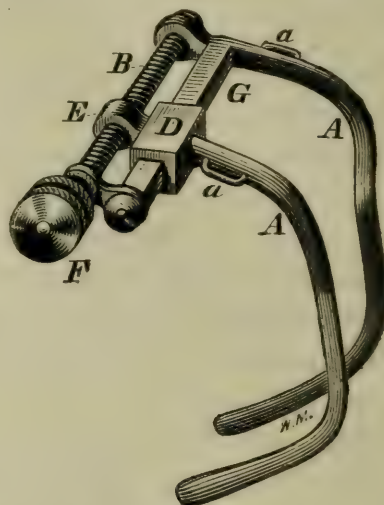
MAURICE HACHE, M. D., 8 Rue de Tournon, Paris, May 18, 1886, says: I have tried BROMIDIA in two cases, one patient suffering from a slight febrile affection, the other a victim of acute insomnia; in the latter case various preparations of opium had proved useless, and the administration of chloral was followed by lassitude and congestion in the head.

BROMIDIA produced sound sleep in both of these cases, unaccompanied by any unpleasantness on awaking. In my opinion this preparation is destined to render good service, and I intend prescribing it whenever the opportunity presents itself.

MR. J. W. FOWLER, the skillful and enterprising pharmacist of this city, who is continually supplying the practitioner with his new and efficient preparations, was the first man out of New York City to manufacture tablet triturates and hypodermic tablets. He has discovered a base that is very solu-

ble and does not harden by age, and is perfectly harmless. He very deservedly secures the patronage of the leading physicians of the Southwest.

A NEW TRACHEOTOMY DILATOR, BY DR. WALDO BRIGGS, OF ST. LOUIS, MO.



Surgeons who perform frequent tracheotomy operations have long felt the need of some practical substitute for the different forms of tubes which have heretofore been used. An instrument which could be more easily introduced, and that would retain itself in the trachea, one that would require less watchfulness and care on the part of the attendants, and was not liable to become clogged by the mucous or false membrane, and that did not of itself cover so much of the wound, and above all, something which would admit of dilatation of the lesion if such became necessary.

The dilator is provided with loops (a a) for the insertion of tapes to keep same in its place, but, as the instrument is self-retaining by the form of the blades, it will be rarely necessary to use the tapes.

The instrument, as shown in above cut, consists of two narrow blades (A A) of solid steel, curved as shown in the engraving and convex on the outer sides, the inner side of each blade being made flat, so that they may approach each other more nearly when closed. One of these blades, the left, is stationary, while the other slides by means of box D, upon the bar G, receiving its motion from the screw B, through the screw nut E. The screw is provided with a milled head, which renders the adjustment of the blades a rapid and easy operation; it is inserted and used as follows:

The blades of the instrument should be screwed up in close contact to each other

before the operation is commenced. After the trachea has been reached and the incision made into it, the knife should be retained within the trachea, and the blades of the dilator inserted by slipping them in alongside of the blade of the cutting instrument, which thus acts as a director for them; this done, the knife may be withdrawn and the blades of the dilator separated to a proper distance. Should the wound become clogged at any time, the blades may be further separated, which will dilate the trachea and cause the obstructing material to be coughed out, or it may be removed by the forceps or other suitable instrument.

This instrument was manufactured for me by Hernstein & Prince, surgical instrument makers, of St. Louis, Mo.

AN announcement of the Kentucky College for Young Ladies appears in this issue of PROGRESS. The institution is located at Pewee Valley, and outside of the acknowledged capacity and moral standing of the faculty, possesses one of the most delightful sites for a school to be found anywhere; the grounds are extensive and beautiful, and the college building large and convenient. Address the principal for catalogue and information.

B. F. RODGERS & Co. claim to carry the most complete line of optical goods in the South. Intending purchasers of microscopes, etc., should write them before purchasing elsewhere. Their manager, Mr. Jas. Johnston, has had ten years' experience with the largest optical houses East and guarantees satisfaction. Mention PROGRESS.

R. A. ROBINSON & Co's hypophosphites and wine coca are fully described in their advertisement. They publish the indorsement of several prominent physicians, who prescribe and recommend both preparations. Their lime juice and pepsin is a very agreeable and popular medicine.

MESSRS. JULIUS WINTER JR. & Co., Fourth Avenue, have the largest strictly merchant tailoring establishment in Louisville. They send samples and rules for measurement on application, and have a very large stock to select from. Their prices are reasonable, and their work good. This much the publisher of PROGRESS can say from experience.

CERTAINLY, if the indorsement of the best of judges is of value, McKenna's old whisky must claim the first place for absolute purity.

"PROGRESS" HAS SECURED SPACE AT THE SOUTHERN EXPOSITION, WHICH OPENS AT LOUISVILLE, AUGUST 28TH, AND CLOSES OCTOBER 23D. WE CALL OUR ADVERTISERS ATTENTION TO THE FACT THAT ANY SAMPLES OR PRINTED MATTER THEY MAY WISH DISTRIBUTED WILL BE RECEIVED FOR THAT PURPOSE, AND OUR REPRESENTATIVES WILL USE INTELLIGENT EFFORT TO HAVE CONSIGNMENTS REACH THE PROPER PARTIES.

MILK SUGAR.—Peptogenic Milk Powder is the only infant food which contains milk sugar solely as a basis. The substitution of farinaceous matter, malt sugar, cane sugar, or any other substance, either wholly or in part, for milk sugar, is an advantage only in this direction—it is profitable to the manufacturer. It is assumed that the average composition of healthy mother's milk is the only natural standard upon which to found an artificial infant food. *Milk Sugar is the sugar peculiar to animal milk, and there can be no justifiable reason or defence, upon any rational grounds, for the substitution of other articles for it.* It is sheer sophistry to try to obscure this fact by classifying sugars and starches as "carbo-hydrates." The very fact that the sugar as secreted in milk differs remarkably in its properties from all other sugars, in spite of its similar *chemical formula*, is a sufficient evidence of the "design in nature," and is, in itself, a sufficient ground for the rejection of all empirical and commercial substitutes for it. Fairchild Bros. & Foster, Makers of Digestive Ferments and Kindred Preparations, 82 and 84 Fulton Street, New York.

MESSRS. JAS. W. QUEEN & Co., of Philadelphia, are among the oldest houses in the country. Their reputation is of the best, and they are the right firm to correspond with in reference to *Mathematical, Optical, and Philosophical* instruments.

MESSRS. KLEINHANS & SIMONSON, who occupy a page of our advertising department, have the largest and finest stores in Louisville. Their immense warerooms are worthy a visit of inspection.

DR. RUMBOLD's instruments are manufactured only by Mr. *E. T. Pelgree*, of 409 Morgan Street, St. Louis. Our readers are referred to his announcement among our advertisements.

"MELLIN'S FOOD" has won the commendation of physicians and mothers for years past for its superiority as a food for infants and invalids. Write for sample, and mention PROGRESS.

PEACOCK'S BROMIDES

(SYR: BROM: COMP: PEACOCK.)

NERVE AND BRAIN SEDATIVE.

Each fluid drachm represents fifteen grains of the Combined C. P. Bromides of Potassium, Sodium, Calcium, Ammonium, and Lithium.

USES:

**EPILEPSY, AND ALL CONGESTIVE,
CONVULSIVE, SPASMODIC,
AND
REFLEX NEUROSES.**

DOSE:

One to two FLUID drachms, in WATER, three or more times a day.

WM. B. HAZARD, M. D.

Professor of Principles and Practice of Medicine and of Clinical Medicine, St. Louis College of Physicians and Surgeons; Formerly Superintendent and Physician to the St. Louis Insane Asylum, etc.

No. 1 South Twenty-third Street, St. Louis.

To secure uniformity in purity, in therapeutic power, in composition, and in moderate cost to the patient, I have been recently prescribing, almost exclusively an elegant preparation known as Peacock's Bromides. I have always found it to possess the characteristics named. As its composition is well known to the profession, and the manufacturers of known integrity, I take pleasure in warmly commending it to my brother practitioners.

E. M. HALE, M. D.

65 Twenty-second Street, Chicago, Ill.

I find Peacock's Bromides to be the best form to use bromides. *It does not cause acne or other bromide eruptions*, and is generally well borne by the most delicate stomach.

R. N. DISBROW, M. D.

143 E. 83d Street, New York City.

I have used Peacock's Bromides *with success* in several cases of epilepsy, and in one case of infantile convulsions, in which it seemed to act better than any other remedy I ever used.

H. JUNGE, M. D.

648 Third Street, Milwaukee, Wis.

Peacock's Bromides is an *excellent anti-convulsive*. Have used it in irritation of the brain in plethoric subjects with *fine results*.

J. W. SCHOOLEY, M. D.

509 Washington Avenue, Minneapolis, Minn.

I have used Peacock's Bromides with the *greatest satisfaction*, and prescribe it regularly in all cases requiring bromides. *It is reliable and deserves the confidence of the profession.*

R. L. WALSTON, M. D.

Decatur, Ill.

I have used Peacock's Bromides *with the highest satisfaction*. The *unpleasant symptoms of brominism do not follow* as in the administration of bromide potassium.

W. R. SANDERS, M. D.

Uxbridge, Mass.

I have given Peacock's Bromides *a severe trial*, and in every instance it has given me *entire satisfaction*.

WM. H. WHITLEY, A. M., M. D.

251 Straight Street, Paterson, N. J.

I have used Peacock's Bromides *in epilepsy*, and in fact in all cases where bromides are indicated, and must frankly say *I am more than pleased with this preparation*.

HARVEY BUHRMAN, M. D.

Foxville, Md.

Peacock's Bromides is all that is claimed for it, and I consider it *the most reliable preparation I have ever used during a practice of over twenty-three years*. I have given it a *fair trial* and such is the result of my experience.

CAUTION.

The popularity of "Peacock's Bromides" has caused several parties to claim that they can put it up "just as good." **THIS IS NOT TRUE.** No mere simple combination of Bromide Salts is **AT ALL COMPARABLE** with this preparation in Purity, Safety, and Therapeutic Value. The substitution of IMITATIVE preparations for GENUINE articles of ESTABLISHED reputation is a GREAT WRONG, as it causes disappointment and loss of reputation to the Physician and injury to his patient, therefore, due caution should be used to prevent substitution in ALL cases.

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PEACOCK CHEMICAL CO., St. Louis.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUNTEANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFESSION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF, AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., SEPTEMBER, 1886.

No. 3.

GENERAL MEDICINE.

ELECTRO THERAPEUTICS.

BY L. H. COHEN,
M. D.,
*Professor of Chemistry,
etc., in the Quincy Col-
lege of Medicine.*

[Read to the Mississippi
Valley Association, at
Quincy, Ill., July
14, 1886.]

A recently published report of Dr. W. T. Belfield (at the April meeting of the Chicago Medical Society) on the treatment of stricture by electrolysis awakens the remembrance of my own experience in

a number of cases of disease treated by electricity, and the discussion that followed the reading of Dr. Belfield's report is a fair sample of the variety of opinion as to the value of this powerful agent. Much diversity exists among the profession on this subject, and although several years have passed since its introduction as a recognized therapeutical means it has made much less progress and less of positive, practical information has been obtained concerning it than might have been supposed or expected. Many members of the profession have, from first to last, viewed electricity with distrust, and in some instances been unwilling to admit its virtues even in cases where it has proved of undoubted value. Others again consider it "an agent having a very limited range of application or usefulness in a very small number of cases." These words I have heard uttered by one who had previously expected "the battery" to perform almost miraculous cures and achieve endless results. While such expectation is not

groundless, the reason for his disappointment and consequent change of opinion is simple enough. I shall presently have occasion to allude to it as a matter of no little importance.

Some there are who, utterly intolerant, absolutely ridicule the idea that the electric current can exert any beneficial effect whatever, or at most allow that it may act as a stimulant in some cases of paralysis, resuscitation of the partially drowned, etc. This class of skeptics must certainly be totally ignorant of the effect of the galvanic current, or any but the faradic or electro-magnetic, as it is often termed, and unfortunately there are so many cheap forms of apparatus or "machines" for its generation—readily procurable by almost any one, that for many years the practice of electro-therapeutics was confined almost exclusively to the hands of an army of quacks who styled themselves "Electricians." This term in itself, indeed, proving the utter ignorance of the pretenders, as there is a marked distinction to be drawn between an electrician and an electro-therapeutist. It is doubtful whether these same "Battery Doctors" could tell the difference, or even state what are the methods of applying the electric current. It is a lamentable fact that many of these ignoramuses like others of their class have received no little encouragement and support from some of the most intelligent and influential members of the community, notably of the clergy, and what is even more remarkable—when any of these medical bushwhackers

happen to become entangled in the meshes of the law, the members of the bar appear to champion their cause with much greater alacrity, and put forth more energy in their behalf than in the case of members of the regular profession—indeed, often seem to prefer to take their part as though they were persecuted saints, suffering martyrdom at the hands of the wicked priests of the Temple, and this even when their conduct has been little, if any, less than criminal.

In the reckless course of the self-styled “Electricians,” they have not hesitated to treat cases of any description, often those in which electricity has been contra-indicated; and instances are not wanting where patients have been seriously injured, or even died from the effect of a powerful, often harsh, current applied perhaps to a diseased lung, causing a fatal hemorrhage. One such case occurred in this city some years since—the patient, a young man in the last stage of phthisis, bleeding to death before the sponges could be removed from his chest; while in another, a patient with malarial fever was placed in a so-called electric bath while suffering from a congestive chill (gastric congestion accompanied with intense pain), and narrowly escaped death.

Besides the mischief perpetrated in this manner by quacks, it is not at all uncommon for non-professional people to imagine that “the battery would be a good thing to try.” Away they go to a drug store or instrument maker, buy a machine (generally the cheaper the better), and use it without the slightest knowledge or idea of how it should be applied, if indeed it should be employed at all, and only cease their ill advised and misdirected efforts when the apparatus becomes deranged or is worn out (the patient perhaps likewise), or the results are not what were expected.

Such are examples of the abuses of electricity; that they should cause many cautious medical men to hesitate in the adoption of a means so capable of doing harm is not to be wondered at; and some of the pro-

fession, even when inclined to consider the advisability of trying it, content themselves, as Dr. Belfield says, “with the vague unfavorable verdict of those who, having once or twice misused the current, attribute to the battery the faults which belong to themselves.”

The celebrated Dr. Addison, of London, who was considered the greatest diagnostician of his day, said, “I have always learned more from my errors than from my success,” and every rational, thinking, honest man will echo this statement.

Jumping at conclusions, good or bad, favorable or unfavorable, is proverbially dangerous, and while a report on electrotherapeutics as on any other subject would be incomplete were failures not recorded as well as successes, the *reasons* for the failures are often readily perceivable, and then they become of real value. I believe the fault to be oftener in errors of method than in principle, rather in the manner than the matter. Perhaps too powerful a current is used in what is a frequent cause of failure in electrolysis, viz: trying to do too much at once. I well remember a case of this nature in a fibro-cystic tumor on the cheek of a child seven months old, the result being that sloughing occurred, terminating in an ugly cicatrix, whereas had time and patience with a somewhat milder current been employed, the growth would have gradually disappeared and a signal failure been avoided. On the other hand, one of the most gratifying successes in treatment by electrolysis it was my lot to achieve by means of very powerful currents. As these two are typical cases, that to which I last alluded being really remarkable, I shall, with your permission, present their record from my note-book:

CASE I. B. F. H.—*Tumor of the Parotid and Cervical Glands.*—I believe I may claim this to be one of the most complete, even brilliant, successes recorded in the yet brief history of electrolysis. I only regret that it did not occur to me until too late to have

photographs of the patient taken before and after the operations. The tumor, which included the parotid and nearly all the cervical glands on the left side, formed a mass extending from the mastoid process of the temporal bone down to the clavicle, and was of an inch and a half average thickness, being a hideous deformity. On the clavicle was also a rather flat, triple cystic tumor.

After four applications, made daily by means of sponge electrodes, the first operation was performed on August 7, 1875, with the assistance of Dr. Byrd, and in the presence of several other physicians, among whom I believe were Drs. Wilson, Robbins, Zimmermann, and Pipino. As the nature of the tumor required that the operation should be divided, only twenty-four cells were used, four needles connected with the negative being introduced into the upper portion of the tumor, two being at its anterior and two at its posterior borders, while the positive needles was inserted at the center, and afterward at the lower or clavicular portion, the current being allowed to pass for five minutes; the patient, of course, had been anesthetized. I believe the medical gentlemen present were rather disappointed at the non-appearance of any *immediate* result of any significance, but I invited them to be present in a week to witness the second operation. Daily applications from eight cells of the battery were made with sponge electrodes, until the 13th, when the patient being again etherized—the tumor meanwhile having become greatly reduced in size, especially at its upper portion—the needles were again introduced, but on this occasion were divided among the entire tumor, and thirty-two cells attached. In four minutes they were removed, when a further reduction was plainly perceptible. On the 14th and 16th the sponges were applied—the negative to the tumor, the positive being held in the left hand—the patient commencing, I could see, to become rather downcast at the growth not entirely disappearing. On the 17th the number of cells was cautiously

increased during a protracted sitting of nearly three quarters of an hour until thirty-two cells were reached, the current from these passing for fifteen minutes. When I removed the sponges I told the patient to “look in the glass,” which he did with evident pleasure. The entire parotid portion of the growth was gone, and very little of the lower or clavicular portion of the tumor was left. Some sloughing of the parotid portion had occurred, owing principally to the anemic—almost cachectic condition of the patient at the time, he having been for several months in a very despondent state of mind on account of the growth, which he had felt convinced up to this time was cancerous.

Improvement now commenced, however, in earnest. The cicatrix resulting from the sloughing caused a slight disfigurement, which I told the patient could easily be remedied by a very simple plastic operation, which at the time I thought would be necessary. In the anemic condition of the patient he afterward contracted a small abscess on the back of the neck, and leaving the city before this had properly healed a sinus resulted, as he afterward wrote to me. I then regretted that he did not allow me to complete the treatment by the operation I have mentioned, and the removal of one or two indurated cervical glands, which a simple electrolysis would soon have effected. None of this, however, proved necessary, as I afterward learned that the sinus completely healed, and even the cicatrix resulting from the sloughing disappeared, at least to such an extent that not the slightest disfigurement could be noticed; the remaining indurated glands had been absorbed, so that none of the swelling remained—in short, the “cure” was complete.

CASE II. A. W., aged seven months.—*Fibro-Cystic Tumor on Cheek*.—As the preceding case was a triumph, so this must be recorded as a failure. The growth had been noticed on the left cheek about four months before I first saw the child, which at the time was of course three months old. It

commenced as a slight enlargement of the cheek just anterior to the ear, and gradually increased in size up to the time it was sent to me on September 19, 1875, when it presented the appearance of an oval, about one inch and a half by one inch and about three fourths of an inch thick. The little patient being etherized by Dr. Byrd, I transfixed the mass near the base (which had a firm fibrous attachment posteriorly, the interior portion being cystic) with a number 8 sewing needle connected with the negative from twenty-four cells, the positive needle, which was insulated to one third of an inch from the point, being introduced transversely to the negative. The current was allowed to pass for five minutes, when the skin around the end of the negative needle commenced to whiten; the needles were then withdrawn. On the 23d, 24th, and 25th a negative sponge electrode from eight cells was placed on the tumor, the positive being placed in the hand. On the 26th electrolysis was again performed and no interference again employed until October 4, when the sponge electrodes were applied; this treatment being repeated with from eight to twelve cells on October 11, 12, 13, 15, 19, 22, and 31, and November 2. A *slight* decrease in the general size of the tumor had then occurred. On November 7, with Dr. Kendall's assistance, a third electrolysis was performed with the result that a portion of the mass sloughed out—just what was *not* desired; but when the little patient was brought to me on November 12 (instead of the day following the operation as it should have been), an ugly black hole presented itself, which from not having been properly attended to was in a slight degree gangrenous. I at once syringed it out with a solution of carbolic acid, glycerine, and water, and removed the greater portion of the slough, the rest of which came away by the application of flaxseed and charcoal poultices. The mother of the child would not consent to its being etherized again, and it would have been barbarous even had it been possible to apply a current

by means of sponges to the raw surface while the child was sensible, so I was compelled to forego any further electrical treatment.

I saw the child on November 14, 16, 19, and 25, and on December 14; afterward, at the request of the parents, I visited it at their home, January 12 and 14. At that time and shortly afterward the wound might be described as healed, but with an ugly cicatrix, thin and almost transparent, the tumor being in size about as large as when first seen by me. I am convinced that had I seen the patient the day after the last operation, and sponge electrodes been then employed, the entire mass would have sloughed out leaving a *manageable* cicatrix. The principal error, however, was, as usually is the case, in trying to do too much at once. Time and patience are more essential in this than in almost any other method of treatment, and it is possible that had the first electrolysis been followed by complete rest, or perhaps one or two applications of the sponge electrodes with a moderate current, the growth would have gradually disappeared. As it is, and I am endeavoring to present an array of scientific facts, I have to chronicle this case among the failures of galvano-puncture.

I should explain that the battery employed in these cases is a thirty-two cell Elias Smith "Normal" Battery. I prefer it for all purposes in which the galvanic current is to be applied, as it is simple and allows of any number of cells being used, from one up to the entire combination, the requisite changes being easily and rapidly made. It is very powerful and *sustains* remarkably well, not requiring cleaning or complete renovation more than twice or three times in a year. I have it so arranged, however, as to give fully double the power intended by the inventor.

I have alluded to the different methods of applying the electric current, and it is proper to state that I prefer the classification employed by Beard and Rockwell, which is a

very practical one; it does not include Franklinism, being confined to the varieties of the current as obtained from the galvanic battery and magnetic coil, the following six modes being comprised in the list:

1. General faradization.
2. Local faradization.
3. Central galvanization.
4. Localized galvanization.
5. Electrolysis or galvano-puncture.
6. Galvano-cautery.

In the last of these—galvano-cautery—no true electrical action is applied, the current being employed only to heat the instrument (the knife or wire) after it has been placed in its position, and to maintain it at the requisite temperature; any other means—were such devised—to achieve the same result would be fully as useful. It is the white-hot metal and not electricity that does the work, and therefore a great distinction exists and must be remembered between galvano-cautery and galvano-puncture, or electrolysis, in which true electro-chemical action takes place, especially when a powerful current is used, the co-existing electro-physiological action probably predominating when a milder current is employed. In galvanization (without puncture) electro-physiological action only is set up.

The faradic current of course is also electricity, and while it is more popular from its being better known on account of the number of cheap forms of apparatus that have been and are constantly introduced, also from the facility with which it may be employed, a single cell being usually sufficient to supply all the force required, I am satisfied that it is of less general benefit than the galvanic or primary current. It is a popular idea, a general impression among most persons, that a battery to do any good “must hurt,” and we often see the large imposing looking machines on the public streets with a register to indicate the force of the current in *pounds* (a purely imaginary, arbitrary, and totally incorrect method, as applied for the purpose); then some power-

ful muscular fellow grasps the handles, allowing the itinerant operator to increase the strength, until at last he winces, kicks convulsively, and cries “enough,” to the great delight of the crowd, and so he goes away followed by admiring friends to boast of his wonderful power of resistance, and how he could bear so many “pounds of electricity.” Now, such a strain on the system, even of a healthy man, is injurious—how much more so then to a nervous invalid! The use of a harsh, powerful, induced current it must be almost self-evident is a grave error, especially in the treatment of neuralgia, a disease in which I believe that faradism is of little, if any, benefit, often indeed aggravating the pain, while on the other hand, in many forms of this distressing ailment, the application of a very gentle galvanic current will give almost immediate relief. I have caused the most severe attack of tic-douloureux to vanish as if by magic under the influence of from two to four cells applied for not more than ten minutes, and by judicious repetition, combined with medication when necessary, a permanent cure has been effected. I have never seen any benefit in this painful affection from the faradic current, although I am aware that cases have been reported.

In employing the faradic current I prefer to use the *continuous coil* machines, such as those of Jerome Kidder, in which the primary or galvanic current is included and can be applied as well as the induced; and I am inclined to the belief that this is a very important point in the treatment of neuralgia by the current obtained from this class of apparatus. In many forms of paralysis the powerfully stimulating effect of the faradic current is of great and undoubted value, but in cases where impaired nutrition of the nervous system, or any portion thereof, exists, greater benefit will frequently be derived from a combination or alternation of faradism and galvanism.

It is well known that while neuralgia may exist as a disease, it is much more frequently a symptom, especially of dyspepsia, and the

pain may appear at a point quite remote from the stomach. In such cases the application of a gentle galvanic current to the seat of pain will usually give relief, while *central galvanization* will be found of great permanent value, and it is often surprising to note how rapidly beneficial results follow.

Of course the patient should, at the same time, be placed on appropriate general treatment, including attention to diet, regimen, etc. In initial dyspepsia, with oxaluria, in which I rely to a great extent upon nitromuriatic acid, central galvanization is a most valuable adjunct.

Of those who *come* to seek relief by means of electricity, perhaps rheumatic patients constitute the largest number. While neuralgia (if not of too long standing) is generally amenable to treatment, rheumatism is by no means as tractable; I speak now of muscular rheumatism, for the inflammatory disease affecting the articulations may be omitted from the list. Many cases of myalgia do yield readily to this treatment, and I have known cases, especially of intercostal rheumatism, that appeared to resist all other means completely cured by a course of—sometimes only a few labile applications of the galvanic current. This is by no means invariable, however, and I have more than once been disappointed in some cases obstinately resisting treatment that had been of marked benefit to others presenting a similar train of symptoms. One peculiarity is, that while in neuralgia recent or acute cases almost always receive even immediate benefit, becoming more intractable as they grow more chronic; rheumatism observes no such rule; indeed I have noticed old, long standing cases relieved, even cured, when others, recently contracted, received no benefit whatever. It is difficult to assign a reason for such capricious vagaries.

Another class of affections, often a thorn in the flesh of the physician—and a terrible one without doubt in that of the patient—diseases of the skin often will yield to galvanism when the entire pharmacopeia has

been exhausted. Many of these are associated with dyspeptic trouble it is true, but often survive the original or co-existing affection. I have known two applications of the galvanic current to completely dissipate every trace of a case of prurigo that had resisted all medication, local or general, and which had been so severe as to render the life of the patient almost a burden. It is well known that herpes has been also treated with marked success by the galvanic current.

While speaking of skin diseases, I am reminded of an instance in which a patient, while using the galvanic current for a neuralgic affection, became troubled with an eruption on the hands. This patient, a lady residing in Chicago, had obtained and was using a Mackintosh battery, by advice of her physician, and when I was consulted by letter on the subject (I have never seen the patient), I inquired whether any care was taken as to the direction of the current, and it then transpired that she had been holding the negative electrode; on reversing this arrangement the eruption soon subsided.

Although in many cases it is immaterial which pole is held in the hand, or in what direction the current is allowed to pass, it is often quite important to pay attention to this matter. In electrolysis the negative must always be connected with the needles (although the circuit is sometimes closed by a single needle connected with the positive), and if a cystic tumor is the subject of the operation, a rush of hydrogen gas bubbles from the negative needle as soon as the circuit is completed. The negative may be considered the destroying pole or agent of disintegration, while on the other hand the positive appears to be the nutritive pole, and it should always be applied to the seat of pain, or the affected nerve in neuralgia; in trifacial neuralgia the positive should be applied to the supraorbital foramen, while the negative is placed at either of the other two points of exit, or on the mastoid process of the temporal bone. Unless this precaution

is observed the pain is very likely to be aggravated instead of relieved, and this will explain why the ordinary *magneto-electric* machines (which are worked by a crank and wheel, and in which the current is reversed at every half revolution of the armature bearing the helices) are worse than useless in such cases.

I might continue to speak of many other forms of disease in which electricity is of benefit, and in some of which I have had more or less experience, such as various uterine troubles, notably obstructive dysmenorrhea, also that often obstinate and even dangerous condition, constipation of the bowels, certain diseases of the urethra and the bladder—this paper indeed having been suggested by a report on the treatment of urethral stricture by electrolysis. I might describe many cases of interest, including one of that object of terror to so many young and recently married men—spermatorrhea and impotence—fancied or impending, in which both the galvanic and faradic currents have proven of great value. I may add too a most annoying and often very intractable complaint, on which a paper was read here last evening, viz., *tinnitus aurium*, but I could occupy the entire day with the detail and must desist. There are many illustrious members of our profession who have contributed richly to our literature and experience on the subject, not the least of these being our friend and neighbor, Dr. David Prince, of Jacksonville. I have simply desired to add a few grains of testimony to the mass by relating a portion of my experience, which indeed I have partially done on previous occasions in detailed reports of cases, some of which I have recorded, but in many more instances have failed so to do. This I now regret, for the subject is one the prosecution of which requires that every man who desires to achieve any results must work out his own plans, and rely in a great measure upon his own ideas and ingenuity in order to carry out the various methods of treatment.

The field is still comparatively new, and while it has more supporters than a few years since, contains yet many bitter opponents. It can, however, scarcely be otherwise, as unqualified success is often insufficient to establish a claim to merit, especially in our profession; but where the path is checkered by failures, either complete or partial, an innovation is cautiously received, and those even who at first may have appeared inclined to welcome it soon turn the cold shoulder of incredulity or suspicion, and mutter “humbug” at those who more courageous, more obstinate or more fool-hardy—call it as you please—still remain undaunted.

For my own part, I may say, that my confidence in the value of electricity, especially of the galvanic current, as a therapeutic means is not only unshaken, but stronger than it was ten years ago. As I remarked in the beginning of this paper, there are some who believe its application to be very limited in range (if, indeed, they believe in it at all). From this view I must beg leave to dissent *in toto*, being thoroughly convinced that its range is very great, and that we have as yet barely entered the vast arena of investigation and accomplishment in this most important subject.

DETECTING THE EARLIEST MANIFESTATIONS OF TUBERCULOSIS.

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No disease with which, as physicians, we have to cope demands more imperatively our closest study than tuberculosis. In every community consumption claims more victims than any other disease, sometimes even

one fourth or one third of the population. In its incipency, progress, and course, it closely resembles a conflagration, which, in its very beginning, a few bucketfuls of water could have easily extinguished, but when once the opportunity is lost the entire fire department scarcely suffices to control.

So, could we but detect the very beginning of the morbid process in tuberculosis, we might by prompt and active measures succeed in arresting the progress of the disease which, in a few weeks or months, may become an irresistible conflagration, sweeping on to inevitable destruction in spite of all the remedies used.

Of what avail is it that we be able to detect the existence of cavities in the lung? The merest tyro in medicine or even the laity can at that time see that the patient has consumption, and in the great majority of cases treatment instituted at that late date either does not influence at all the natural progress of the disease, or merely prolongs life for a short time. It is very different if we can detect the disease in its very onset. Treatment then instituted proves effective, which a month or two later avails nothing, or merely stems the tide for a few months.

A fearful responsibility rests upon the family physician, upon the general practitioner, and upon the expert.

To the family physician is entrusted the care of the lives and health of hundreds of families, many of them perhaps with strong hereditary predisposition to tuberculosis. Where such is the case, he is remiss in his duty if he sits in his office and waits to be consulted concerning a cough, which has for months resisted domestic remedies, and which possibly he himself has had abundant opportunity for observing. Modesty and diffidence should not in such a case stand in the way and prevent his giving timely warning of the approach of danger, and urging the necessity of prompt and active remedial measures. If he fails to detect the presence of tubercular deposit, it is a fearful responsibility which he assumes if, in the face of a bad family record, a persistent cough, and possibly progressive emaciation, he assures the patient and friends that there is no disease present when, perhaps, even then the opportune time for arresting the disease may be slipping by never more to be recalled. If hesitating to assume the

responsibility of deciding he seeks to shift it by referring the case to some one whose opportunities and experience render him more skillful in diagnosis, he thereby multiplies it tenfold. Upon the verdict of the expert treatment is instituted, and possibly a life saved, or abandoned and a life sacrificed.

A few years ago, in examining a gentleman who had made application for insurance, I detected a very slight deposit at the apex of one lung which, taken in connection with a family history showing a few cases of consumption in some distant branches of his family, and a slight cough or cold which had annoyed him for several weeks, induced me to refuse to pass him. I warned him of the necessity for prompt and active treatment, and advised him to consult his family physician without delay. This he did, and after being examined was told there was nothing the matter. Six months later that same case consulted me, having had a severe hemorrhage, and upon examination I found a large cavity and extensive tubercular deposit involving the entire upper lobe. Six months of precious time had been lost, never to be regained. What a fearful responsibility!

It behooves us, therefore, to bring to our assistance in the investigation a thorough and systematic knowledge of all the symptoms, rational and subjective, an accurate familiarity with the physical signs indicating the slightest amount of deposit, and to call into requisition all available instrumental aids to diagnosis. We must inquire closely into the family history to ascertain if the patient has inherited a tendency to the development of tuberculosis. If such be the case, then even the slightest signs afterwards discovered become so much more weighty.

The age, the occupation, the variation in weight, the pulse, and temperature, must all be noted, and carefully considered. So, also, must the complexion, the form and movements of the chest, the character of the cough, and expectoration. The trans-

parent sclerotic, and clear, pearly skin; the long, slender hands, with clubbed fingers and curved nails, should lead the close observer to suspect phthisis. The daily evening exacerbation of temperature, the quickened pulse and respiration, upon slight exertion, are still more conclusive. In making a physical examination of the chest the utmost care must be exercised not to overlook what may be merely a slight departure from the normal healthy condition. Each of the several methods of examination should in turn be practiced, beginning with inspection and ending with auscultation.

In practicing percussion, the consideration of the pitch of the sound is exceedingly important, for often a slight elevation of pitch may be the only noticeable change and indicates a slight amount of consolidation. A diminished resiliency of the tissues causing the percussing finger to rebound with less force is a valuable sign. Do not be satisfied with the examination of the supra and infra clavicular regions, but investigate every part of the chest, for some times the deposit occurs elsewhere than at the apex of the lung. The increased vocal fremitus, detected by palpation, indicates that the lung tissue has become a better conductor of vibrations, because of the relatively increased proportion of solid material. As ordinarily practiced, the vibrations originating at the vocal cords travel downward through the trachea, against the expiratory current of air, to reach the surface of the chest. The same may be said of vocal resonance.

Holden sought to overcome this difficulty by the use of his resonator, consisting simply of a rubber tube, about two feet long, provided with a narrowed metal mouth-piece, through which the patient inspired, causing a loud whistling noise, the vibrations being carried with the inspiratory current down through the trachea and lungs to the surface of the chest with a clearness and intensity which amplify any slighter variation caused by disease.

The use of an instrument such as Holden's respiratory anemometer will make a permanent record of many important data. This instrument consists of clock-work for moving, at a uniform rate, a strip of paper, upon which the respiratory curve is traced by a pivoted lever, the other arm of which is connected with a valve which is moved back and forth by the current of inspiration and expiration as the patient breathes through the tube. You record, therefore, not only the rapidity of the respiration but the relative force and length of inspiration and expiration.

The microscopic examination of the sputa may disclose particles of the lung tissue even before any physical signs of a cavity can be detected. The presence of the tubercle bacillus can frequently be demonstrated by the microscope before physical examination discloses the presence of tubercular deposit. Nothing should be neglected which can in any way aid in the investigation, for a few weeks' appropriate treatment at this stage is worth more than as many years in a later stage.

I have no doubt that often we err in making light of the slighter indications of tubercular deposit for fear of alarming patient or friends. How much better would it be even to occasionally unnecessarily alarm than in some instance to lose the vantage ground which can never afterwards be recovered.

QUININE.

<p>The action of sulphate of quinine in well-characterized intermittent fever is, when administered in one single dose of fifteen or twenty grains at night, more certainly efficacious than smaller doses at intervals. The single full dose taken at night is seldom followed by any depressing effects. The usual <i>tinnitus aurium</i> observed to follow small doses administered during the day constitutes one of the great objections upon the part of most persons to take this salt; and the small doses are never so efficacious.</p>	<p>The action of sulphate of quinine in well-characterized intermittent fever is, when administered in one single dose of fifteen or twenty grains at night, more certainly efficacious than smaller doses at intervals. The single full dose taken at night is seldom followed by any depressing effects. The usual <i>tinnitus aurium</i> observed to follow small doses administered during the day constitutes one of the great objections upon the part of most persons to take this salt; and the small doses are never so efficacious.</p>
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INTESTINAL OBSTRUCTION.

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State Medical Society,
and referred by title for
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tional and mechanical obstruction is very varied, both in variety of cases and in their treatment.

We have no new treatment to present for trial, no criticism, no new theory as to etiology and classification, but four important cases which are instructive in character and treatment. That an accurate differential diagnosis in all cases is impossible every physician will concede; hence, reliance on any one mode of treatment is utterly unsafe. The history, symptoms, and treatment of these four cases we shall give in the order of their occurrence.

CASE I. L. P., a female infant, eighteen months of age; family history good. She was robust and well developed. To date of sickness she enjoyed fair health except a slight coryza of a few days' duration. Symptoms on first visit were: expression anxious, pale, irritable, constipation, abdomen full (no tenderness, no appearance of tumor), temperature 102° , with full, rapid pulse. The diet for the preceding two weeks was as usual, except the plentiful allowance of toast cheese at bedtime, peanuts in quantity during the day, intermixed with chewing gum and apples. There was a complete disgust for food, but no vomiting. Diagnosis, indigestion, with extreme constipation.

The following six days the patient every twelve hours gave a temperature of 105.5° , which returned to normal or nearly so correspondingly. The pulse also varied from 80 to 140. These unusual symptoms gave us no little doubt and uneasiness. The respiration during the elevation of temperature was rapid but not labored.

The little patient at all times was perfectly

In this paper we propose to record our experience with regard to intestinal obstruction in four cases within the last twenty-four months. The experience of our medical fraternity in func-

tional. Every effort was made to evacuate the bowels with purgatives and enemas of water. Antipyretics were given without result. Small stools followed each injection, which gave us encouragement to follow the treatment.

It may be well to state that the opinion of one of the consulting physicians on the first visit was pneumonia, the following day he pronounced, before the arrival of the attending physician, the case cerebro-spinal meningitis, which produced the usual alarm and bad effect on the expectant course of treatment pursued. We finally agreed to give by enemas repeated doses of deodorized tincture of opium until the full relaxation of the muscular system occurred, which followed in about ten hours of vigilant watching and waiting, and the physician was rewarded by the relief of the patient by copious stools of partially masticated peanuts, pieces of toast cheese, unscathed by the digestive process, bits of apples, and boluses of chewing gum. The complete relaxation and cleansing of the intestinal tract gave immediate relief to all ill symptoms, and the patient rapidly convalesced.

Ileus paralytica would explain the extreme constipation, but not the variations of temperature; but that the temperature should fall to normal at once after the freeing of the intestinal tract of this conglomerate mass of undigested matter probably high up in the small intestine, and the pulse becoming regular and natural, unquestionably argues that that was the sole cause of the arterial disturbance.

By the courtesy of the attending physician we are permitted to record case two: J. M., male, thirty-five years old, laborer, of temperate habits. He received a sudden stroke from the plow-handle on right side over caput coli while plowing, but did not feel any severe symptoms for several days; then bowels became very constipated for which he received the usual cathartic remedies without effect. The symptoms and distress became so severe that rest in bed was en-

joined, and hot applications to seat of pain, enemas of warm water, and hypodermic injections of morphia were given for several days without the expected result. Consultation was called, but unfortunately for the patient the consulting physician advised elaterium which, by its hydrogogic effects, only increased the agony and symptoms.

The writer was called and found abdomen distended, great tenderness, tumor in right ileum, and patient in articulo mortis. Six hours after death autopsy exhibited abdominal cavity filled with liquid fecal matter; the ascending colon full of semi-solid matter; the small intestine entirely clear of fecal matter and full of gas; and a perforation at the anterior portion of caput coli. There was no mechanical obstruction by abnormal growth or displacement. The lumen of colon was clear. The autopsy developed the conclusion that the first cause began in the blow from the plow-handle; extreme constipation followed, and the administration of the elaterium produced forced distention of the already disabled gut, which ended in perforation and death. It is probable that this patient might have been saved by the expectant and milder treatment.

CASE III. J. G., a man sixty-four years, of fair, general health, of temperate habit, although in middle age inclined to dissipation; a carpenter and farmer. Three years previous to attack he had diarrhea conjoined with erysipelas, after which he suffered severely from frequent brief attacks of diarrhea, but which never kept him from his business. The first symptom was intense pain in left lumbar and inguinal regions with extreme constipation, followed by vomiting and great prostration. There was no stercoraceous matter vomited. By repeated hypodermics of morphia in seat of pain and enemas of warm water for four days, the patient felt, as he said, something tear loose, and a copious evacuation of bowels followed with complete relief to patient. With each enema small quantities of fecal matter and gas passed, which gave encouragement for the

repetition of the enema. Since this attack there has been none of the former symptoms.

In this case we are justified in the conclusion that during the sickness of erysipelas diarrhea three years before there were cicatricial bands formed, which partly occluded the lower part of the descending colon, or upper part of sigmoid flexure, that gave rise to the frequent diarrheal tendency, and at this particular time by constipation a greater distension of gut followed; hence, the feeling as if something gave way, then the evacuation and complete freedom from pain followed.

CASE IV. G. C., a man of temperate habits, with only moderate health and vigor, and about thirty years of age. He had been unwell for several days, and busy away from home, when pain in right inguinal space, with headache and rise in temperature set up. He had been constipated for some days, for which purgatives and enemas had been given with little effect. Exhaustion followed from intense pain and nausea. There was no fecal vomiting. Hypodermic injections of morphia and repeated enemas of warm water and castor oil produced the desired evacuation of bowel within two days with complete relief of pain, nausea, and rise of temperature. Tonics and good nourishment rapidly restored the patient to his usual health.

In these three recovered cases we were encouraged to repeat the enemas by the small fecal evacuation after each enema. This gave us the result we sought at no unnecessary delay, although each patient suffered longer than we wished, and demonstrated that the obstruction was not of a surgical character, notwithstanding the symptoms were exceedingly distressing to patients and friends.

The highest authority and the most extended experience plead for the expectant treatment for the welfare of this class of patients before a more radical procedure is attempted.

GENERAL SURGERY.

CONSERVATIVE
SURGERY.

BY

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OF COLUMBUS, IND.

[Read to the Mitchell Dis-
trict Medical Society, at
Seymour, June 4, 1886.]

In surgery two important questions are necessary to be decided: First, what can be saved? Second, what must be sacrificed? The life of the patient is first

in consideration. Can the injured member remain without sacrificing or greatly endangering the life of the patient?

Questions involving life and limb, as well as the reputation of the surgeon, carry with them a mighty responsibility in the decision of which many things are to be taken into consideration. First, the nature of the injury; second, its location; third, age of the patient; fourth, physical condition; fifth, previous habits; sixth, hygienic surroundings.

The nature of the injury might by some seem all that is necessary on which to form a basis for action. But the difference in the multiple forms of injuries, in the same location, varying as they do in their ultimate results, forbid a decision without the consideration of other questions. For instance, a comminuted fracture will heal and furnish satisfactory results in the finger or forearm, while in the femur, leg, or foot, may be followed with gangrene, and eventually necessitate amputation, if not a sacrifice of the life of the patient.

In some parts of the body nature seems better able to work than in others. Thus in the hand, arm, and forearm, the results have been better in lacerated wounds and comminuted fractures than in the lower extremities owing to the more perfect circulation and the smaller amount of adipose tissue involved, thus furnishing the higher state of vitality and lessening the danger of septicemia and pyemia. Incised wounds, where the main artery and nerve are not severed, usually heal by first intention, while lacerated wounds are healed by a process

of new granulations, and the throwing off of the killed and injured tissues, thus requiring a tedious process; and where the surface is quite large, it often becomes a matter of consideration whether the probably future condition of the patient does not justify an amputation. Gunshot wounds, where the medullary substance of the bone is involved, and the apparent injury to the soft parts is slight, frequently necessitate amputation. The age of the patient plays an important part in the decision of the surgeon, and a question which is often hard to decide.

Nature's power to heal is weakened in advanced age, as well as the susceptibility to shock is increased from amputation. In compound comminuted fractures of the aged, is the life of the patient in greater danger from prolonged confinement and suppuration than from the shock necessarily accompanying amputation?

That which would seem an easy task for nature in a patient in youth, or middle life, would be an impossibility in ordinary circumstances in old age. The physical condition of the patient may necessitate an amputation in one patient, while his age and other bearings in the case would favor an attempt to save the limb. Scrofulous, phthisical, and syphilitic affections are of special importance for consideration.

Inebriacy disorganizes the perfect state of the blood, and invites sloughing and septic troubles. In some localities patients recover more readily from injuries where nerves and tissues are exposed than in others. Certain locations favor tetanus, and even produce it idiopathically without any traumatic cause. In such localities injured nerves are best treated by clean incisions, and excluding the atmosphere.

To lay down arbitrary rules for amputation is a thing impossible with our present knowledge of surgery and the recuperative powers of the human system.

The sound judgment of the surgeon in weighing the questions suggested forms the rule for each individual case. I have no

doubt that many limbs have been sacrificed for want of good judgment and a low estimate of nature's power to heal. In my own experience I have found cases that if I had followed the general rules of surgery I should have amputated, whereas by diligence in aiding nature the cure has been perfect and the member saved. There is a mistaken idea among the laity, and I must say, to a certain extent, the same prevails among members of the profession, and that is, that it requires greater skill to amputate a limb than to save one. It seems heroic to amputate, and cowardly to withhold the knife. Any butcher can cut off a limb, but it requires the skill and good judgment of a surgeon to save.

If your decision has been to save a limb, what is the best course to pursue? What the best form of dressing, etc.? Cleanse the wound thoroughly of all foreign matter and blood. See that all bleeding vessels are secured, and oozing stopped. Remove all lacerated and torn tissues that seem to have lost vitality, or are cut off from proper support by circulation. This being done, and a suitable apparatus decided upon for the support of fractured bone, if one is involved, proceed to disinfect and hermetically seal the wound. I cleanse the wound with carbolized water, adding sometimes, if oozing is present, a little alcohol to the water. I then pour the wound full of balsam of peru, and cover with lint, saturated with the same. If the wound be extensive, I then cover with marine lint, over which I place a layer of carbolized oiled silk, and secure with a roller bandage.

It is important to allow the dressing with the balsam to extend some distance beyond the wound so that the communication with the air is entirely cut off. This dressing I allow to remain until the surrounding parts or condition of the patient necessitates its removal. Increased pain in the parts, with redness and swelling, attended with a throbbing sensation, with a feeling of pressure, is usually an indication for a removal of the

dressing. I have found it quite unusual to have to remove the dressing under six or seven days, and in fact I have allowed it to remain for five weeks when upon removal I have found the parts healed, and the bone fully united, with the dead tissue entirely separated and dried, which would come off with dressing. The parts may remain quite tender, and require a few simple dressings with vaseline or some simple ointment.

In the latter part of the winter of 1880, a gentleman came to my office with an incised wound of the foot, made with an ax. The cut extended through the metatarsal bones of the first, second, and third toes of the left foot, just behind their respective articulations. The plantar fascia was cut at inner side of foot. The toes and foot anterior to the cut drooped downward, making a gapping wound fully one inch in width, which was filled with coagulated blood. I removed the clot, and had quite a profuse arterial hemorrhage from quite a number of small arteries. I ligated six, which, by the way, I found quite a difficult task, as they were not easily picked up. After all bleeding had ceased, I cleansed the wound with warm, carbolized water, and brought the parts in apposition, and secured by a number of interrupted sutures, with silk ligature. The wound was then covered with lint, saturated with balsam peru, over which was placed a large pad of marine lint, and covered with antiseptic gauze, and the whole covered with carbolized oiled silk. This was secured by a heavy roller bandage. I allowed the dressing to remain for seven days, when I removed it, and found the wound entirely healed, with the exception of the points from which the ligatures protruded. The stitches were removed, and the ligatures all came away but one. The cap which the dressing formed was replaced and secured by a roller, and allowed to remain for a couple of weeks, when it was removed, and the wound was solid, and a perfect union of all the bones. The patient

was able to resume his work in four weeks, without lameness or inconvenience, save the tenderness from the cicatrix. In this case there was no pus, only a drop where each stitch was removed. It required no washing nor dressing of any kind save the first. The balsam became hardened, and formed a perfect splint. This patient was over fifty years of age.

On October 30, a gentleman, aged thirty-five, received an injury of the index finger of right hand by a sledge hammer flying off the handle. The finger was mashed from the first to above the second joint, denuding the bone of all the tissue on one side and dorsal surface; the bone entirely exposed, and fractured at first and second articulations. The finger hung from second joint, and presented a mass of comminuted tissue. A small piece of bone was removed from second joint, the finger bathed in hot carbolized water, moulded to as near the shape of a finger as was possible, and then dressed with the balsam of peru, with lint and roller applied in several thicknesses. The finger gave the patient but little pain after the first few hours, and he went about his daily vocation.

At the end of five weeks the dressing was removed, and the finger found entirely healed, with the exception of a small point at second joint. The dead flesh was entirely separated and dried, and came off with the dressing. There was no pus. Bony union seemed to be complete, with ankylosis of joints.

A gentleman, aged twenty, was caught between the dead woods of cars while making a coupling. The force of the stroke being spent on right elbow joint. The arm dropped, paralyzed, and he was unable to raise it. I was called at 3 o'clock A. M., and found both sensation and motion absent and no pulsation at wrist, either in radial or ulnar artery. Some crepitus at elbow, but no impediment to a free movement of joint. The hand and arm was cold. I semiflexed the arm, and allowed it to rest in

a felt elbow-splint. In about two hours I was summoned to see him, and found him in great agony. The arm had become boggy, and of a purplish color, and felt entirely dead. The pain was in the shoulder and elbow joint. I placed the patient in bed, and straightened the arm, and began the use of hot water. I kept cloths wrung out of hot water constantly applied for three days. The second day the arm would pit on pressure and had a dead, shriveled appearance with no perceptible circulation or sensation. At the points of abrasion a serous, bloody fluid oozed out quite freely. At the end of the third day some warmth would remain in arm and hand without the hot application, and a little sensation was apparent. The arm had become of a mottled appearance. I ordered a poultice of pounded beet leaves and pulverized charcoal kept constantly applied, hot. In twelve hours the change in the arm was quite apparent. The warmth became established; the swelling, or rather edema subsided. Sensation restored, and gradually motion was possible. The hot dressing was discontinued, and a roller supplied.

The man rapidly improved, and as a result the arm was almost perfect. There remained some restriction of motion at elbow, due to adhesions which will be almost entirely overcome. In this case it seemed that amputation must inevitably be the result, brought about by the compression or plugging of the brachial artery and the injury to the nerves, but by artificial heat, keeping the parts alive, and relaxing muscular tension, and allaying muscular irritability nature came out victorious. I might give in detail a number of cases wherein nature has wrought wonderful cures. To have amputated the arm would have seemed justifiable at any time within the first three days. How much more satisfactory the results, both to the patient and myself.

In operations of more magnitude I have followed the same rules in dressing with equally good results. In amputation of the

breast, when the cut was extensive, I have known them heal by first intention in seven days. In amputation of the leg, when patients have been weakened and reduced from long suppuration, I find much can be gained by hermetically sealing the stump and leaving it undisturbed for six or seven days.

I have found the most of the flap united when the dressing has been removed. It lessens the amount of suppuration and gains time for the patient without incurring any greater risk of septic trouble. Besides it does away with the necessity for constant aqueous applications, which do much harm if not properly applied, and even if a certain temperature be maintained it is a source of discomfort to both patient and attendants.

What are the indications in contused and lacerated wounds?

First, to aid nature in throwing off the dead tissue and restoring the half killed and injured tissue to life. This being the indication, we seek the best means of affording nature that relief, which consists in hot water in some cases and the exclusion of air and foreign matter in others. Leaving the nerves and new granulations unexposed and undisturbed.

MULTIPLE GUN-SHOT WOUNDS.

BY J. R. LANDERS,
M. D.,
LOUISVILLE.

Reading an article in PROGRESS on the expectant, or conservative plan of treating gun-shot wounds of the chest, suggested

the propriety of reporting a recent case which came under my care.

On the 24th of December, 1885, at 9 o'clock P. M., I was sent for hurriedly to see a man who had received several gun-shot wounds. I did not know who I was to see. On arriving I found a German man about forty-five years old, and weighing 215 pounds, lying on the floor breathing heavily. On inquiry I learned he had come home drunk and began abusing his son,

when the latter drew a thirty-eight calibre Smith & Wesson pistol and fired five shots at him. It remained to be determined how many had taken effect. A superficial examination revealed a wound in each breast and two in the right arm, one of which seemed to be in close proximity to the elbow joint. In the mean time I had sent for Dr. A. M. Cartledge, who arrived in a few minutes. During the interval I had examined the wound—the left breast, which was directly over the heart, and found that it had not penetrated the chest cavity, but had passed around the chest making its exit at the posterior border of the left axilla. By this time Dr. Cartledge had arrived, and we proceeded to examine the other wounds. The wound in the right breast was immediately below and in contact with the nipple. The ball that made this wound was discovered lodged beneath the integument at the lower angle of the right scapula. Further examination revealed four wounds of the right arm, two of entrance and two of exit. One ball had penetrated so near the elbow joint that Dr. Cartledge said he feared injury had been done the joint, but careful examination revealed the fact that the joint was uninjured. Further examination was necessary, as five shots had been fired, and the effect of only four had been found. The effect of the other ball was soon found to be a contusion on the right side immediately over the last floating rib. Evidently the force of the ball had been spent here, but it failed to enter, which was due, I suppose, to the elasticity of the tissues.

Having found the effects of all five balls, the next step was dressing the wounds. Dr. Cartledge suggested that the wounds be closed antiseptically. Accordingly the wounds of the chest were cleansed with warm water and listerine, and then occluded by antiseptic compresses of salicylated cotton saturated with listerine, held in position by bandages.

The wounds of the arm were the next that demanded attention. It was agreed that the

arm should be put on a splint to keep it at perfect rest to favor the process of repair. An angular splint of thin boards was made and applied, the wounds being dressed by closed compresses as were the others. All dressings were allowed to remain until the third day, when they were removed and the wounds found to be scabbed. The dressings were reapplied. On the second day the patient was constipated, tongue heavily coated, and complained of headache. * Calomel, one-quarter-grain doses, combined with sugar-of-milk, was ordered every hour, which had the desired effect. No pain was complained of in the wounds. On the fourth day he complained of pain in the side with some abdominal pain. Examination revealed tympanitis and circumscribed peritonitis, caused, it was supposed, by the contusion of the right side. The diet was restricted to fluids, and he was ordered Parrish's emulsion of turpentine and listerine, equal parts, teaspoonful every three hours, with opium sufficient to allay pain and insure quietude. By the sixth day the patient rested and did not complain of pain. On the fifteenth day, the patient progressing well, at his request I decided to remove the bullet, which remained under the integument below the right scapula. I injected over the ball a few drops of a four-per-cent solution of the muriate of cocaine, and cut down and removed it, the operation being painless. The wound was closed by adhesive strips and healed by first intention.

I will state that this case was regarded as an unfavorable one from the first, both by Dr. Cartledge and myself, because he was a whisky drinker and was drunk when he received the injuries. He informed me that he was in the habit of drinking twenty or thirty drinks of whisky per day. It may be remarked that during the treatment of his injuries he took but two drinks of whisky, as stated by the family.

On the twenty-first day he was discharged well.

It will be observed that these wounds were

never probed. There was never any fever except on the fourth day, when he had a slight elevation of temperature due to the peritonitis. On the fifth day the dressings were removed and wounds found hermetically sealed by scabs, because immediate antiseptic occlusion had been practiced to make the wounds subcutaneous injuries from the start, believing that the disastrous results of gun-shot wounds, which are not quickly fatal, are due to inflammatory, suppurative, and infective disturbances which have their origin in septic contamination of the wound track.

The point I wish to make is, that probing is unnecessary and dangerous. What good can it do the patient if we find the bullet? It only assists the surgeon in prognosis. If the prognosis is bad it will do no good, and may do harm for the patient to know it; and if the prognosis is favorable it will do the patient no good for the surgeon to know it. Has there not been undue importance attached to the early removal of the bullet and exploration of the wound for other foreign bodies, viz., pieces of clothing, etc.? Does it not occur too rarely that other foreign bodies than the bullet are carried into the wound to justify exploration? The foreign body may become a source of future irritation, but would it not be better to give the patient the benefit of the doubt, as we can deal with it secondarily as successfully as primarily, for the primary interference may give rise to the same undesirable conditions as a foreign body itself, such as particles of clothing would.

IODOL.

Iodoform, so long in popular favor as a surgical dressing, is likely now to give place entirely to the tetraiodopyrrol, known as Iodol.

It is said to be entirely free from the danger of any sort of toxic effects, no matter how extensively applied. It may be freely used as a snuff in cases of syphilitic or tuberculous rhinitis.

BISMUTH SUBNITRATE IN BURNS.

BY A. M. CARTLEDGE,
M. D.

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and Practice of Surgery,
and Clinical Surgery,
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lege of Medicine,
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Burns are among the most troublesome injuries the surgeon is called to attend. He has to exercise a degree of patience only equaled by the victim's pain. Nearly all the usual methods of treating burns locally

are decidedly inefficient. About the only true principle advanced for centuries was, that air should be excluded from the burnt surface, and this no doubt was the suggestion of some suffering patient.

It is the usual custom in burns of the second, third, and fourth degree (and these constitute the largest class, and the varieties especially alluded to in this paper) to immediately smear the parts with some substance as flour, starch, or white lead. These dressings, by excluding air from the exposed nerve terminals, fulfill one indication of treatment, but in others utterly fail, and later do much harm. Suppuration occurs often as a result of the decomposition of the vegetable substances, and this together with the impediment to drainage favors very materially septic absorption.

In burns of much extent it becomes necessary to remove such dressings as early as the third day to prevent serious systemic symptoms; and now the real trouble comes. The pain inflicted in removing such a dressing, provided the burn is extensive, is simply appalling. I have observed it attended by not inconsiderable shock, even where the most careful precautions by way of soaking was practiced. It is generally customary after removing such a dressing as has been described to apply some oleaginous dressing, either the old carron oil—linseed oil and lime water equal parts, or the more modern carbolized oil. Some have discarded the various powders and pastes and resort primarily to the carbolized oil.

This last has been my practice until re-

cently. But the carbolized oil does not meet all the indications of treatment, and is I think much inferior either as a primary or secondary dressing to the subnitrate of bismuth. The principles involved in the treatment of burns does not materially differ from that in other open wounds. The application of principals in practice are somewhat modified by the peculiarities of the injury. The application of antiseptic methods to burns of great superficial extent is attended with considerable difficulty. However, patience and care with an anesthetic, if necessary, will accomplish much in this way.

The ideal dressing for a burn is the one that is thoroughly protective, hence comfortable, and one that can remain longest, viz., antiseptic. I think in the present state of our knowledge bismuth and absorbent cotton is the nearest approach to such a dressing.

Mode of application.—The parts should be as perfectly cleansed as possible with warm carbolized water on listerine. I usually puncture any large vesications in second degree burns. Then if the burn be of small superficial extent powder it over with bismuth, over this a good thick layer of absorbent cotton, and over all a bandage. If the injury covers considerable extent, so as to render the too free use of bismuth dangerous, make a solution in water of the bismuth and paint it over the part. This last permits of a uniform distribution of a minimum quantity. I have used this dressing in several cases of burn, and in one extensive scald of the leg, second and third degree, and so far have not witnessed any evidence of bismuth poisoning.

The results have been very satisfactory, in two or three cases scarcely any suppuration occurring. I have not used it in burns involving as much as one fourth of the surface of the body, but think with care it may be used safely. A dressing of this kind promotes to the greatest degree healing by scabbing, which is the method to be desired

in burns. After removing the cotton, because of suppuration it may be, it is not necessary to remove the bismuth scab entirely, but cleanse any point of suppuration and powder a little bismuth on, then re-apply fresh cotton. This method saves the surgeon much labor, the patient much pain, and does much to save life from septic absorption and suppurative exhaustion. Finally by promoting healing by scabbing instead of by granulation, it will do much to lessen subsequent contraction in burn cicatrices.

DOUBLE FRACTURE OF THE INFERIOR MAXILLARY.

BY WILLIAM DANIEL,
M. D.,
CORYDON, IND.

On the evening of the 23d day of May, 1886, I was called to see Cyrus Allen, section boss on the Air Line Railroad; found him holding up his

chin, blood flowing freely from the mouth. Upon examination I discovered a complete oblique fracture of inferior maxillary immediately in front of the angle on the right side, and a complete transverse fracture on the left side, dividing the bone into three segments. The middle, including the chin, admitted of free motion, wounds in the mucous membrane bleeding freely. Patient being much excited, mucous membrane bleeding profusely, and being late in the evening, I applied the four-tailed bandage loosely, ordered an astringent wash of alum to check hemorrhage, and left him until morning. The fractures were produced by one blow, with a man's bare fist, on the angle of the jaw.

On the morning of the 24th I found the patient suffering much pain; hemorrhage entirely checked. I removed the dressing, and set the bone in proper position by gentle manipulation, using the teeth and the patient's feelings as guides. I padded the jaw with cotton, and applied the four-tailed bandage, supporting it with a turn or two of Barton's; I then gave him an opiate, which kept him sleeping for twenty-four hours. A

week afterward I molded pasteboard splints to the jaw, applied the four-tailed bandage, and sent the patient to superintend his work. At this date, two months after the accident, I find no deformity whatever. I extracted no teeth, gave no medicines, and fed the patient on milk. In the treatment of such cases I desire to call attention to the importance of frequent examinations of the fractures, as considerable displacement may occur, and the patient complain but little of pain; also the great care needed in applying bandages, the danger being in applying them too tightly; they should be applied loosely, and frequently examined during the first week.

RECUPERATIVE POWER OF THE BONY TISSUES.

It may be said Rhea Barton began a new departure in surgery by cutting pieces out

of crooked bones and straightening them, thus demonstrating the remarkably plastic properties of healthy bone; but little, however, seems to have been done in this field. Macewen astonished the profession a few years ago by the results of his brilliant operations upon distorted bones. Dr. Vance, of this city, in the case of Cary Warren, who had long suffered from obliteration and bony union at the knee-joint, the limb being flexed almost at right angles, cut out a wedge-shaped piece of bone and forcibly brought the leg into an extended position almost straight; and, binding up the limb, a few weeks only were necessary to complete the union of the apposed ends of the newly cut bone. In the August issue of PROGRESS appeared a publication, by Dr. E. von Donhoff, embracing an account of a hundred and two cases of fractured bones treated by, what he was pleased to call, the rapid method. The cases reported were mostly divisions of bone for the correction of deformities, yet a large number were due to accidental injuries. The manner of dressing was in no way peculiar, and the rapid method consisted simply in the removal of the dressing perma-

nently and the dismissal of the case in from three to four weeks from the date of the injury. The first dressing being removed frequently within the first week. Of the cases reported, twenty of them occurred in the practice of Dr. Morgan Vance, eight in the practice of Dr. Hunt Stucky, eight in the practice of Prof. A. M. Cartledge, one in the practice of Dr. J. H. O'Reily, the remaining sixty-five being observed by the essayist himself. In a foot-note Prof. Cartledge states his observation has inclined him to remove permanently the dressings in the case of fractures in the continuity of the long bones in the upper extremities within fifteen to twenty days; and in the lower extremities, twenty to twenty-five days in adults. In children, the dressing should be removed earlier. Now, when the bones may be cut and shaped to suit the surgeon's fancy, we may indeed record a great advance in that science which allows deformities to be so artistically corrected.

**BEST MATERIAL
FOR SUTURES.**

THE best material for ligatures and sutures would, from

very conflicting opinions entertained by the master spirits in surgery, seem to be just such flexible, strong, threadlike substances as may have the proper size, texture, flexibility and strength. One man uses hemp whipcord, another prefers white silk, many prefer iron dyed silk, cat-gut, kangaroo tendon, horse-hair, silver wire, and silk-worm gut: each holds a high place in the esteem of many of the boldest, most successful, and, withal, the ablest of our surgeons.

These facts are strongly suggestive that little importance may be attached to the material used if it be clean only, and adapted to the fancy of the operator.

The necessity for rendering sutures and ligatures antiseptic is not recognized by many whose success in practice has been great, yet it must be remembered the manufacturer who observes rigid rules of cleanliness produces aseptic material.

EYE, EAR, AND THROAT.

**CORRECTING
ERRORS OF
REFRACTION
IN THE EYE.**

BY
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LOUISVILLE.

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[Read to the Mississippi Valley Medical Association, at Quincy, Illinois, July 14, 1886.]

Before undertaking to estimate optical defects in the eye, with the view of correcting them, several facts must be thoroughly mastered. In the first place, it should be understood that while all eyes vary somewhat in size, form, and relative position, experimental research has established a sort of standard of acuity of perception, and fixed a limit upon the range

of sight. In the second place, the normal human eye, though it may have constantly varying states, constituting individual peculiarities, is distinguished from all other optical instruments chiefly on account of its own inherent power of adjustment to widely varying distances. The inherent power by which the eye is able to see, and clearly distinguish the nature of near objects, is called the active power of accommodation. Accommodation of the eye, then, is more or less active according to the distance of the object seen. Positive accommodation ceases at a distance of a little less than twenty feet. At and beyond twenty feet the accommodation is negative—just as we say a lens which converges light is a positive lens, whilst the lens which diverges light is negative.

Having determined a fixed standard of divergence in the lines drawn from the sensitive spot in the retina or the nodal point in the crystalline lens to opposite diameters of the object as a basis for determining the relative acuity of vision, it remains only that we shall deprive the eye of its innate power of self-adjustment, and then proceed by measurement of its refraction to determine what may be lacking to develop the normal acuity of perception. Now, if the object

used in determining the angle of divergence in the lines drawn from the eye to the opposite diameters of the object be placed within the range of the distance at which the eye may be accommodated, we shall never be able to know how much of that power the eye being examined is exercising at the time; but, if we place this object at a distance just beyond the limit of the accommodating power, we see then the rays of light, which illumine the object, approaching the eye in parallel lines, and the eye with normal refraction and normal acuity of perception will at once distinguish the character of the object whose diameters are not greater than the proper amount of space to be occupied by the test object at this distance.

To be more definite: Prof. Snellen, of Utrecht, has perfected a graded scale of test letters for the determination of the acuity of vision on the basis of an angle of five minutes separation in the lines drawn from the eye to the object, and, by a mathematical process wholly, he has devised a schematic series of test letters by which the relative acuity of vision may be determined at any established distance. The eyes of persons given to habits of exacting perfect sight should be able at the distance of twenty feet to read the test letters No. 20 with the accommodating power suspended. If the eye does not see these, it may see, at this distance, objects of larger size, corresponding to an increased angle; and if no further change in the refraction of the light will further improve the power of perception, the eye is amblyopic, or dull of perception, from some structural change in some of the refracting media, or of the retina, the optic nerve, or the choroid; and when we consider that structural changes in these parts may arise from any one of several thousand causes of diseases or injury, the necessity for a thorough mastery of the whole subject becomes at once apparent.

To measure the refraction of the eyes of persons under forty years of age, who have

felt the need of assistance, or who have suffered inconvenience from the prolonged use of the eyes in reading, writing, or other work requiring close attention and good sight, it is always necessary to resort to some efficient means of suspending the accommodation, or focusing power. This being done, the test should be made at a distance of twenty feet, because this is just without and beyond the range of the natural power of accommodation, and the rays of the light emanating from an object at this distance are, in fact, so far as the eye examined is concerned, perfectly parallel. The object used for the determination of the acuity of perception should be the test letters of Snellen, for reasons already stated.

The instruments employed should be such as have well-known and systematically graded powers of refraction. These instruments, in the form of lenses, being placed close to the eye, one at a time, noting in each case the effect upon the vision, a standard for calculating the nature and extent of the defects of refraction is easily obtained. Now, these instruments, or lenses, used for testing the refraction are the most important instruments the ophthalmic practitioner is ever called upon to manipulate. The result of all his calculations and labors in this field will depend as much upon the known properties of these little instruments as upon the fidelity with which he adheres to scientific details in the proper procedure of determining the acuity of his patient's sight.

Discussing this subject with Prof. Snellen, and expressing the need I had long felt for a more accurate method than any at that time in use by which to determine the exact refracting power of lenses, he invited my attention to an instrument which he had just invented, and to which he had given the name of "phakometer, or lens measurer." While this instrument seemed to have some defects, it was, nevertheless, to my mind, a great improvement upon any other method known to me.

Prof. Snellen, upon my return to America,

in October, 1878, kindly sent me one of these very useful instruments, a description of which may be found in the first volume of the *Medical Herald*, page 33 (May, 1879). Prof. Snellen and myself have added some improvements to the original model of the instrument, and while it is still lacking in some unimportant details it is, nevertheless, a perfectly reliable and well nigh complete instrument for determining the refracting powers of all sorts of spectacle lenses.

This instrument (which in its greatest state of perfection may be had from Mr. John W. Cook, optician, in Fourth Avenue, Louisville) is now an essential agent for the protection of the ophthalmic practitioner against those annoying disappointments to which he is almost constantly liable at the hands of careless or incompetent opticians who are daily entrusted with the important work of grinding lenses to suit special cases.

Experience has taught the necessity, in all cases where the eyes are to be continuously employed, of correcting to the minutest possible degree the entire amount of defective refraction discoverable under a complete suspension of accommodation. In cases of myopia of more than $\frac{1}{14}$, two pairs of glasses are absolutely necessary, because it is uncomfortable to read at less than fourteen inches; and although the myopia may amount to $\frac{1}{12}$ only, yet the patient should be able to read at from fourteen to sixteen inches. In myopia the effect of the patient's accommodation is always positive; therefore the greatest distance at which the eye is expected to see to read may be employed as a fraction, using the number of inches as the denominator, which is to be subtracted from the fraction representing the degree of the myopia. If, for example, the myopia equals $\frac{1}{12}$, the greatest distance for distinct vision will be about twelve inches. From this must be subtracted the simple fraction representing the distance at which it is intended the patient shall see within the range of the limits of accommodation. It is an error to suppose the eye will not be damaged

if the patient should read without glasses at twelve inches or less; or that it will be harmless to see objects through the negative glasses at distances less than are provided for in the correction of the defect in the eye. Therefore, in myopia of a $\frac{1}{12}$, the patient desiring to read at fifteen inches, we should subtract $\frac{1}{15}$ from $\frac{1}{12}$, which leaves $\frac{1}{60}$; and the negative glass representing $\frac{1}{60}$ of the unit of refraction should be employed for reading, while the negative glass $\frac{1}{12}$ should be employed for all general out-door purposes; in fact, should be worn at all times except in the performance of work requiring near vision, when the reading glasses should be used. It is a great mistake—and one of the very few mistakes, I may say—made by Prof. Donders in fixing the normal far point at twelve inches; and the near point, for all practical purposes, may remain at eight inches, as he has placed it.

To make the matter of correcting myopic refraction more clear, let us suppose the patient sees $\frac{20}{x}$ with minus $\frac{1}{4}$, and desires to read music at a distance of twenty inches, we have only to subtract $\frac{1}{20}$ from $\frac{1}{4}$, and we shall find that with minus $\frac{1}{5}$ the desired result shall be obtained.

Now, as to the value of twenty as the enumerator of a fraction which is to represent the acuity of vision: It is important to note that twenty feet represents parallel rays of light, and the denominator of the fraction represents the angle of divergence in the lines drawn from the eye to the object. It is manifestly clear, therefore, that this fraction should never be reduced, and that we should insist upon expressing the relative acuity of vision by the fractions $\frac{20}{x}$, $\frac{20}{xx}$, $\frac{20}{xxx}$, $\frac{20}{xl}$, and so on to $\frac{20}{cc}$, the last fraction representing an amount of obtunded perception so great as just to permit the patient to distinguish coarse objects and to go out doors alone. If the fraction be reduced, and we express $\frac{20}{xxx}$ as $\frac{2}{3}$, or $\frac{20}{xl}$ as $\frac{1}{2}$, it shall mean absolutely nothing to any one but the observer himself, and the moment the case in point had passed from his memory it

would mean nothing to him. Preserving the fraction whose numerator shall always be twenty, and whose denominator shall represent the size of the object seen, the precise amount of sight for all distances may readily be determined from the record.

It frequently happens in attempting to estimate the degree of refraction in an eye that no spherical lense completely corrects the deficiency or develops normal acuity of vision. Then we use the stenopæic disc, having a slot $\frac{1}{16}$ of an inch wide and $\frac{3}{4}$ of an inch long, the precise center of the disc corresponding to the exact center of the slot both as to length and width. A central line run longitudinally through this slot, etched upon the surface of the disc, another one running across at precisely right angles to the first, through the center, facilitates the matter of locating the precise meridian in which the longitudinal axis of the slot lies, and having revolved this disc in a catch frame, upon the face of which is marked all the lines of a half circle, divided into spaces of five degrees, beginning at zero and running to 180, we note the point at which the disc must be turned to give the patient the best sight. Still requiring the patient to look through the slot in this disc, in its most favorable position, we place in front of the disc a series of test lenses until sight has been developed equal to $\frac{20}{x}$; or it may be the patient sees in meridian 90° without any lense. Revolving the disc to 180° , we test the meridian at right angles to the first, and here find a positive glass of $\frac{1}{20}$ brings sight in this meridian to $\frac{20}{x}$. We then order for this eye a cylindrical lens with its axis at 90° ; and if the optician who is entrusted with grinding this lens, and setting it in a frame for the patient's use, should fail to produce a lens perfectly up to the standard, or if he set its axis in any other meridian than precisely 90° , it will fatigue the patient's eye, and prove mischievous instead of correcting the defect according to the original design.

It sometimes happens that a lens is re-

quired in each of the principal meridians tested. Then we have to subtract the fraction represented by the one lens having least refracting power from the fraction representing the other lens having greatest refracting power; and the result of this process leaves a fraction which shall represent the cylindrical lens required to correct the asymetry of the cornea. Now, suppose the eye under examination sees at 90° with $-1\frac{1}{48} = \frac{20}{x}$; at 180° with $-1\frac{1}{24} = \frac{20}{x}$; to correct this eye with a spectacle glass, it is necessary one shall be constructed after the following formula: $-1\frac{1}{48} \text{ c } 90^\circ \subset \frac{1}{48} \text{ s.}$ This combination gives the eye in meridian 180° $-1\frac{1}{24}$ by adding a cylinder to the spherical glass $-1\frac{1}{48}$. This is a very simple combination, easily made, and easily set in the frame. In my experience it frequently happens that the two surfaces of a lens are not ground with that degree of accuracy which would insure the best result to the patient, or that the combination is not set with the axis of its cylindrical surface precisely in the meridian ordered. Snellen's phakometer serves as a ready and satisfactory method of detecting any errors of this kind, and at once enables the practitioner to know if his R has been correctly filled.

Perhaps one of the most common sources of error on the part of ophthalmic practitioners may be found in those cases where the eye is quadratic, so to speak, where there is too much refracting power in one meridian, and too little refracting power in the meridian at right angles to the first, or some other meridian nearly at right angles. If it should be ascertained by the use of the stenopæic disc that a negative glass develops the best sight in one meridian, and a positive glass in another meridian, each of these two shall be taken as representatives of cylindrical lenses whose axis shall always lie at precisely right angles to the meridian in which this particular kind of refraction has been discovered. To take a case in point: A gentleman having his accommodation suspended, sees at 90° with $-\frac{1}{60}$; at 180°

with $-|- \frac{1}{20}$. We correct his refraction with a lens having two surfaces, as follows: $-|- \frac{1}{20} \text{ c } 90^\circ \text{ } | \text{---} - \frac{1}{60} \text{ c}$. With this combination the gentleman sees readily $\frac{2}{x} \frac{0}{x}$, and after the active powers of accommodation have been recovered he still sees $\frac{2}{x} \frac{0}{x}$. Because of an habitual use of glasses for all distances, he is able, unconsciously and almost instantaneously, to relax the force of his accommodation; and, therefore, he may enjoy, if he be a strong, vigorous, healthy man, until near the age of fifty this one form of lens for both near and distant vision. It is important to note this irregular refraction, which we call astigmatism, in its development obedient to certain laws concerning the relation of the eyelids to the ball. Donders easily demonstrated a small amount of astigmatism in all eyes, while Helmholtz declared that if a mechanic, being ordered to construct an optical instrument, should bring him one so imperfect as the most perfect human eye he would refuse to accept it.

The now universally recognized fact that astigmatism exists in all eyes, or, in fact, that the curvature of the cornea is, in eyes having the normal refraction, greater in the vertical than in the horizontal meridian, and that hypermetropic astigmatism is nearly always observed in the horizontal meridian, while the myopic form of astigmatism as constantly belongs to the vertical meridian, has led to extensive inquiry into the probable causes of these conditions. The eyelids separating horizontally, the contractions of the orbicularis muscle are not able to alter the relative positions of the canthi, whose ligaments are comparatively unyielding. With the eyelids partially closed, or incompletely separated, such pressure is made upon the ball as to increase the vertical curve of the cornea at the expense of its curvature in the horizontal meridian (Kelch *). An eye which is, by the nature of its development, deficient in refracting power, is hypermetropic. This condition

calls for some strain upon the focusing power to enable the eye to see small objects; and the pressure of the lids upon the ball, long continued, is sufficient to do away permanently with this error of refraction in the vertical meridian, while in the horizontal meridian it is a little increased—it may be correspondingly so. An astigmatism of $\frac{1}{20}$ —hyperopic, of course—may be easily produced in an eye which was hypermetropic to the extent of $\frac{1}{40}$ only. It is a well-known fact that the myopic eye is nearly always a diseased eye; that myopic refraction results from incomplete development in the walls of the sclerotica at the temporal side of the optic nerve entrance, and partly from the intra-ocular tension brought on by the consentaneous action of the converging and focusing powers.

Where long continued tension exists in a spherical body, the disposition to yield is always greatest at the point of least resistance; and when we consider how frequently the dural and pial sheaths of the optic nerve fail to unite by fusion before parting company with the trunk of the nerve to expand into the walls of the sclerotic coat, we need feel no surprise that just at this point on the temporal side of the nerve entrance is found the point of least resistance in most all eyes. It is fortunate, however, that the peripheral fibers of the optic nerve, when they are expanded upon the choroidal surface, lie very near to the point of entrance, because in that yielding of the globe which produces myopia, atrophy of the contiguous choroid always takes place; and, if the staphyloma posticum be very large in extent, with a corresponding amount of atrophied choroidal substance, the fibers of the optic nerve, which pass to the vicinity of the macula lutea, corresponding limitation in the power of perception would necessarily result. Indeed, it sometimes happens that the whole central part of the visual field is blotted out in this way, just as in some cases of prolonged edema of the disc causes indistinct perception in the center field by virtue of

*The common cause of astigmatism. Kentucky State Society Proceedings, 1886. PROGRESS, p 59.

the mechanical pressure of a large vessel upon those portions of the nerve destined to take part in the formation of that wonderfully complex nervous structure, the retina, at its center of perception.

With the irregular refraction already existing in the cornea of an eye which is primarily hypermetropic, the development of myopia may be just sufficient to cause those rays of light passing through the meridian of least curvature in the cornea to be focused at the proper point in the retina; while those rays entering in the meridian of greatest curvature would naturally unite just before reaching the retina. With the crossing of these prematurely united rays occurs a certain indistinctness of perception, and in the meridian of now normal refraction there would be exact union, so that objects would be seen in one position or meridian comparatively distinct, while in the meridian at right angles to this the objects would appear indistinct in marginal outline. This so alters the shape of objects that glasses which correct the refraction are imperatively demanded for seeing all objects situated beyond the limits of the extent of the myopic refraction. For example, the myopic refraction in the vertical meridian being $\frac{1}{44}$, the patient might still read within fourteen inches, but could not see objects beyond fourteen inches without a correction of the astigmatism.

Now, it may be, the general practitioner of medicine is not prepared to undertake to estimate with a view of correcting optical defects, yet he must be familiar with the various optical defects in order to comprehend the causes and the nature of many of the most distressing phenomena attending their presence. If the exercise of the special sense of sight entails an amount of mental concentration and muscular effort which becomes tedious, further tension will in time bring on hyperemia of the overtaxed organs. In the perception, conduction, and consciousness of sight, the reflex phenomena are greater always in persons who are not en-

tirely at mental ease, or those who suffer irregularities in the performance of the functions of other important organs, as the gastro-intestinal tract, the urinary and generative organs, or the liver.

Take, for example, a young woman of the nervous temperament who from some cause, is obliged to employ the eyes pretty constantly in study, and if she have an optical defect, neurotic phenomena will soon come on to disturb the general comfort, and at the menstrual epoch the reflex disturbances incident to the imperfect performance of this function may lead to melancholia, which may not exceed in gravity the phenomena commonly described as hysteria; but if the individual shall have lost sleep and eaten imprudently, acute mania may ensue. This may persist for days together, or for weeks, terminating in a lucid interval proportioned in its duration and continuance to the total abstinence of those studies as involve the close and continued use of the sight, recurring again, most likely, with increased severity on returning to study. Cases of this nature are so common in the practice of specialists that it is time the general practitioner should be able to recognize them.

Now, a few simple rules by which this may be done will afford great satisfaction to the practitioner and great relief to the patient. Instil a drop (two grains to the ounce) of a solution of sulphate of atropia into each eye, and observe if the person, who is presumed to be under forty years of age, can read at twenty feet the letters No. 20 on the test card. Cards of test letters, put up in cheap and convenient form, upon the same plan as Snellen's, in close imitation of the original, and quite sufficient for all practical purposes, can be had of Meyrowitz Bros., 295 and 297 Fourth Avenue, New York; or James W. Queen & Co., 924 Chestnut Street, Philadelphia. Those who desire to have the original test letters of Snellen, may obtain them from any importer of optical instruments, or by writing directly to J.

Greven, 287 Gunzenmarkt, Utrecht, Holland.

Every physician should have at least one card of test letters. He should note what his patient sees at twenty feet on this card before instilling the Homatropia drops; and after they are used, making the test within an hour after the application of the drops. If the difference is very great, it is almost certain the patient is hypermetropic. If the patient can see none but the largest letters on the card before the instillation of the drops, and none of the letters after, it may be the dimness of sight is due to some intra-ocular disease, and not to deficient refraction. If the patient can see the type called minion or brilliant at five or six inches from the temporal margin of the orbit, and equally well at fourteen inches, but can not distinguish any but the largest letters on the test card placed at twenty feet, it is certainly a case of myopia; and just here it may be well to mention that myopia is a result of disease, which may increase in extent, as before stated, until more or less complete blindness ensues, unless it be corrected.

Persons should be warned against permitting the light to shine directly into the eyes while using them. They should never look at an object under twelve inches, nor undertake to read or write at a distance of less than fourteen inches, nor to make use of the eyes in a position where it is necessary to face the window or an open door; for it is altogether owing to the reflection of light from the surface of an object that we are able to see it, or from the illumination of the space immediately surrounding the object. The black print of a book or paper is distinctly seen when the letters are spaced upon a white surface, tinted paper being always objectionable, as affording less distinct background. If the tint be red, it irritates the eye by intensifying the amount of heat produced by focusing the light reflected from the surface, and thus unduly excites and irritates the retina.

If spectacles are to be used, no guess-

work in their choice or adaptation should ever be indulged in; in any matter of pure science, supposition should always be excluded.

In measuring the optical properties of the eye, great care should be taken to secure perfect accuracy; and in adapting lenses to the correction of optical defects, the precise measurement both of the lenses employed and the distance between the pupils of the two eyes should always be made. The lenses should always be so adjusted that their optical axes shall correspond precisely to the optical axes of the eyes at the time of use. Therefore, lenses for reading should be set in different planes before the two eyes. Each lens being so centered as to permit its optical axis to correspond to the line of vision will thus necessitate a bending of the frame in that portion called the bridge so that the plane in which the flat surface of the lens lies shall intersect the plane of its fellow at about 15° for seeing objects at from fourteen to sixteen inches. For seeing objects at twenty feet or more, the two lenses may lie almost precisely in the same plane.

As two and three eighths inches will be about the average distance between the pupils for reading purposes, or other near vision, the optical axes of the two eyes being convergent, it is manifestly clear that the distance, when the eyes are employed to see objects at twenty feet or more, an increase in the distance between the two pupils will result. A difference of a fraction of less than one eighth of an inch may be observed in persons having less space between the pupils; while those whose eyes are more widely separated at will require a slight increase in the estimation of the difference between parallel vision and convergence.

A complete series of test lenses, a good ophthalmoscope, a complete series of test objects, and a thorough mastery of all of the details governing the use of each, are prerequisites to success in estimating and correcting defects in the optical properties of the eyes. The use of such lenses, therefore,

as are suggested by dealers in spectacles or jewelers, who fancy themselves opticians because they buy and sell spectacles, it may not be surprising to learn is always attended with ultimate discomfort and, in many cases, serious injury to the eyes.

AN ACCOUNT OF THREE CASES OF APHONIA.

BY A. B. THRASHER,
A. M., M. D.,

CINCINNATI.

[Read to the Kentucky
State Medical Society at
Winchester, June,
1886.]

Aphonia is a symptom caused by many widely differing pathological conditions. But since it is frequently a symptom of such prominence as to be the sole reason for the patient's consulting his physician, I

have thought proper to dignify this symptom by giving it as the title of this paper, rather than by naming each case, as the lesions would justify.

Aphonia may be due to an affection (a) of the central nervous system, or (b) of the laryngeal nerves after leaving the brain box, or (c) to an abnormal condition of the larynx itself. An example of the first form is the aphonia resulting from an embolus lodging in the left middle meningeal artery, giving rise to an injury of that portion of the cortex cerebri known as the left third frontal convolution, or the location of the speech center. We have here right hemiplegia with aphonia.

The pressure of an aneurism of the thoracic aorta on the recurrent laryngeal nerve is an example of aphonia from the second cause. The laryngeal lesions giving rise to this condition are numerous and range from the malignant neoplasm to the sudden aphonia with hardly a perceptible laryngoscopic change due to the overuse of the voice.

To illustrate some of these different forms I herewith present three cases taken from my private practice:

CASE I. *Syphilitic Ulcer of Left Chorda Vocalis; Aphonia; Recovery.*—Mr. K., aged forty-eight, fairly well-nourished, came to me in December, 1884, saying that one week

before he had taken cold, grown hoarse, and for the last three days he could not speak above a whisper. There was some soreness of the throat which was aggravated on swallowing, or attempting to speak. His family history was not good. His father had died of phthisis at forty-three years of age; one uncle and one aunt on father's side died of phthisis; one sister died of phthisis, and a brother was "consumptive;" mother living and healthy; previous health fair, but would take cold easily, when the cough would be hard to get rid of; had a venereal sore fifteen years before, which was pronounced by the attending physician a hard chancre. He was put under constitutional treatment, and no other symptoms were observed.

Examination revealed a congested pharynx. There were several small inflamed patches over the upper and lower border of the epiglottis. Over the left vocal cord was a clear-cut, deep ulcer, surrounded by an area of inflammation and edema; the swelling obliterated the left ventricle of Morgagni and extended up to the ary-epiglottic fold. The right vocal cord was inflamed and swollen, but no ulceration was present. There was but little motion of the vocal cords during deep breathing, and an attempt at phonation could not nearly approximate them. A careful examination revealed no lesion of the thoracic organs. Of course, the point to be decided was as to the etiology of the disease, *id. est.* whether the lesions were due to tubercle or syphilis. The family history would indicate tubercle, the individual history pointed to syphilis. The fact that the trouble came on suddenly, together with the apparently healthy condition of the lungs, decided me to put the patient on anti-syphilitic treatment. I ordered ten grains of iodide of potash, well diluted, after each meal, increasing the dose one grain each time. I gave 1-10 grain of the bichloride of mercury hypodermically every day. I cleansed the surface of the ulcer daily with a mildly alkaline spray, and touched the surface with solid nitrate of silver, fused on

the end of a pure silver probe. After five days, the ulcer having taken on a healthier appearance, I stopped the use of the nitrate and used a disinfectant spray (1-5000 of bichloride).

In ten days, symptoms of iodism appearing, and the edema having mostly subsided, I stopped the iodide and allowed the patient to go home (he living in another State), giving him pills of the protoiodide of mercury, one fourth grain each, to take three times daily for one month. When he left me he could phonate nicely and the dysphagia had entirely ceased. I heard from him six months later and there had been no return of the symptoms.

CASE II. *Papilloma of Right Chorda Vocalis; Aphonia; Removal; Recovery.*—Miss W., aged twenty-seven, music teacher (instrumental and vocal), came to me in October, 1885, to consult me in regard to her throat. She was apparently in good general health; family history good. Four years before had a mild attack of scarlatina, which left her throat rather weak, but she was still able to give instructions in singing. Six months ago took a severe cold from exposure and became quite hoarse. As the general symptoms of cold subsided her voice became clearer for a time and then grew rapidly worse until for the last month she has been unable to phonate. She has a cough, but it is not very troublesome. Direct examination revealed a slight follicular pharyngitis. The laryngoscope showed a small sessile tumor on the posterior inner border of the right chorda vocalis which effectually prevented the closure of the glottis.

The tumor was at once grasped by a strong pair of Mackenzie's laryngeal forceps and without much difficulty torn from its attachment. The base was then cauterized with a saturated solution of chloride of zinc.

The throat of this patient was exceedingly sensitive, so that before I could satisfactorily use the laryngoscope I threw a spray of a four-per-cent solution of cocaine over the pharynx, and still I had to brush the upper

part of the larynx with an eight-per-cent solution of the same drug. Then the operation was performed with but little irritation.

The after treatment consisted in the daily use of a disinfectant spray over the larynx for a week, when the inflammation had mostly subsided. The cough entirely disappeared, and the voice was quite as good as to range and timbre as ever before.

CASE III. *Sarcoma of Thorax; Pressure on Recurrent Laryngeal Nerve; Aphonia; Death.*—Mr. G., aged thirty-three, lawyer, called on me in January, 1885, complaining of hoarseness and a slight, but irritating cough. He was well developed and nourished; family history good, with no history of previous illness. He attributed his trouble to over exercise of his voice while engaged in professional duties.

An examination of his throat revealed a considerable hyperemia of the larynx. Taking it for granted that this was the cause of the trouble, I directed my treatment to its removal, and in a week he was much relieved.

I saw him at frequent intervals, and he seemed to be free from the voice trouble until the last of March, when he again came to me with an increase of his throat trouble. He did not complain of any thing except his hoarseness, and there was a return of the laryngeal hyperemia. After a few local applications he grew better and was called away from the city. At this time he complained of loss of appetite and said he had some pain in the epigastric region. Before returning to the city he, at the advice of some friends, spent a couple of weeks at some mineral springs in Southern Indiana. He returned to Cincinnati the last of April, when I found that he had grown very much worse. His voice was of a variable pitch—usually higher than normal, and at times he could hardly phonate. He had rapidly lost flesh and grown weaker. On questioning him he said he felt well in every respect except his voice and his stomach. He complained of loss of appetite, and said he had some gastric pain after eating. I examined his throat and

found the symptoms not far different from what they had been before. The voice symptoms were very much too severe to be accounted for by the lesions in the larynx, so I proceeded to examine his chest. I had desired to do this the last time he visited me, but he laughed at the idea of his having any serious trouble; and now, although evidently so much worse, he said his "liver was only a little out of order," and for me to fix up his throat and he would be soon all right again. With some reluctance he stripped, and I discovered on inspection a marked diminution in the respiratory movement on the left side. Percussion elicited marked dullness extending between the first and fourth ribs, and from the right border of the sternum to the left mammary line.

Over the dull area the respiratory sounds were not well marked. The heart sounds were not well heard over this region, although in one place, about over the aortic arch, there was a distinct bruit. I advised him as to the serious nature of his trouble and asked for a consultant. He made light of my fears and struck himself over the chest saying that he never had any pain in that region. He grew rapidly worse within the next week. His voice became at times reduced to a whisper and was never natural. His stomach was so delicate that he could only take a little food, and that little seemed to distress him. He began to suffer from dyspnea and palpitation.

Over the previously described area could now be seen a well-marked bulging of the chest wall. At this stage my friend, Dr. Comegys, was called in consultation. There seemed to be but one question in the differential diagnosis of the case, viz: Whether we had to do with an aneurism or a malignant neoplasm. The absence of the aneurismal thrill, and loud bruit, and the rapid growth of the tumor together with the now marked cachexia decided in favor of a malignant growth. It was evident that the pressure of this tumor on the recurrent laryngeal nerve had given rise to the voice symptoms, and

the irritation of the pneumogastric had induced the palpitation.

Mr. G. now went to Rochester, New York, and after a few weeks died. The attending physician, Dr. E. M. Moore, made a post mortem examination, and sent me the following report: "Nothing was found except the presence of a huge sarcoma of the thorax, apparently arising from the mediastinum and extending into the lung of the left side. The mesenteric glands were filled with the same substance. There was no disease of the stomach, pancreas, liver, or any other organ. This accounted for the prolongation of his life until the deposit had acquired such enormous proportions."

I present these cases without comment, as showing a few of the widely different causes for the same symptom, and to impress you with the idea that the intelligent physician should not rest satisfied with the routine treatment of symptoms, but should endeavor to go below to the underlying cause.

THE PHAKOMETER.

The importance of an instrument for the easy and accurate measurement of spectacle lenses has been felt by every oculist. Snel-
len's PHAKOMETER answers well for the manufacturer; and, by adding a graded half circle, divided into spaces of 5° to the registering disc, the axes of cylindrical lenses may be seen at the same time their refraction is determined. Placing another graded half circle in contact with the posterior wing of the clamp, between the auxiliary lenses, one may readily insert a test cylinder with its axis in any desired meridian.

Attaching a bellows to the registering disc and the anterior auxiliary lens, dispenses with the necessity for a dark room in which to make use of the instrument. A series of points of light admitted through small apertures in an opaque disc form the basis of the measurement of lenses.

Recent articles in the *American Journal of Ophthalmology* have given rise to fresh inquiry concerning this instrument.

OBSTETRICS AND GYNÆCOLOGY.

PREVENTIVE
MEDICINES IN
OBSTETRICAL
PRACTICE.BY R. C. MCHORD,
M. D.,

LEBANON.

[Read to the Beech Fork
Medical Society, July
20, 1886.]

At no time in the history of medicine has the ounce of prevention been more fully appreciated than at the present. Prevention is to-day, and will be for all time to come, the Alpha and Omega of progressive medicine. The practitioner

needs to learn that he would be at an intellectual standstill were it not for the men in the laboratories, whom he so often styles "theorists and bug hunters of the profession;" and, if he expects to be an accomplished physician and surgeon, he must of necessity be both a theorist and sanitarian. He who fails to utilize the knowledge of the means of prevention of diseases, and who uniformly prescribes his pills and powders for their cure, without first investigating the causes and mode of propagation, must of necessity step to the rear. Want of familiarity with the known means and their proper application for preventing the spread of contagious and infective diseases among those who are under our charge will be looked upon in the future as reprehensible; not by the public as yet, but by the rarely intelligent client; for the average citizen of this free country of ours is too much engaged in politics and filling his pockets with gold to look after or think of the health of masses. He will awake much more sooner from his lethargy when his pocket is in danger than when his health is endangered; especially is this the case when the danger to health is of a general and not local nature.

Witness an illustration of this in our once proud Commonwealth; when pleuro-pneumonia was first known to have invaded a single herd of cattle in this State, the whole Commonwealth was stirred from center to circumference; the public press and the

great body of cattle owners of the State demanded that the legislature be called in extra session to enact laws and appropriate funds to enable the Board of Health to stamp out this fell destroyer of *cattle*. When, if small-pox, cholera, or even the plague itself had made its appearance among us, who would have thought for a moment of the legislature being convened, or of money being appropriated to stamp it out?

While I say the public, as at present informed, will not hold physicians responsible for neglecting the known laws of sanitation in the every day routine of practice, yet the time is not far distant when it will be different. Can we say now that the practitioner of medicine is not reprehensible who allows the excretions from his typhoid fever patient to be thrown out on the ground, or into the privy vault, without regard to whether the water supply of the family or nearest neighbor will be contaminated; is it not his duty to see that the stools from such patients are thoroughly disinfected and burned in the furnace?

The new-born infant and the officious old woman who would thrust a piece of fat meat or a sugar tit into its mouth immediately after birth, should receive the earnest attention of the physician, who should always remember that it is as much a part of his duty to give to the nurse explicit directions as to the management of the child and mother, as it is to deliver. Many hours of mental anguish would be spared young mothers if physicians would only do their duty. In this connection you will pardon me for calling your attention to a little book entitled "*The Nurse and Mother*," written by Dr. Walter Coles, consulting physician to St. Ann's Lying-in Hospital, St. Louis, Missouri. The object of this book is to instruct nurses and young mothers as to the duties devolving upon each, and the proper management of mother and child during the parturient state, and for the management and feeding of infants. It is written in a plain, concise, practical, and intelligent way, so that any non-

professional person can understand it. Its several important subjects are discussed, as far as possible, in a professional manner, and it does away with all of the petty fgeries and foolish ideas that have emanated in the brains of old women who are always clustered in at the birth to discuss accouchment. If this book could be placed in the hands of every nurse and young mother, I believe the death rate of children would be very much diminished, to say nothing of the inestimable benefits to mothers. The subject of sepsis and antisepsis in their relation to the prevention of disease, have for a long time been receiving the marked attention of the best medical minds in the world. The septicemic variety of puerperal fever seems to have of late received more than its share of attention; but when we contemplate the fearful mortality that has yearly been recorded to its credit, we are forced to believe that the disease, as a scourge, is more to be dreaded than small-pox or cholera. This is most humiliating too, in view of the fact that it is largely a preventable disease, caused too often by the carelessness of the physician or nurse. Many of us have been cognizant of such cases which, by intelligent and conscientious vigilance, might have been prevented.

So long as a disease is controled by an unknown power, it is formidable; but as soon as it is traceable to natural causes, it is sure of its terrors. Until Semmilweirs discovered the common source of puerperal fever, and its acceptance by the physician, the disease was considered formidable. God's providence alone was credited with causing a disease which, in truth, is very often caused by the lodgement of particles of contagion on the hands and under the finger nails of the attending physicians. Admitting then the chief source of puerperal fever to be a contagion which, I suppose, will not be questioned when viewed from the standpoint of modern investigation, what should be the duty of the practitioner after exposure to sepsis to the obstetric patient?

In other words, is time an all essential element in the cleaning forces, or can the accoucheur with impunity resume practice after a thorough disinfection? By a thorough disinfection, I mean an antiseptive bath for the entire body, cleaning the finger nails with a nail brush, and with a strong disinfectant solution, and an entire change of clothing, from the hat down to shoes and socks.

In 1883, Dr. T. Gaillard Thomas read a paper to the New York Academy of Medicine on his method of disinfecting after attendance in a case of puerperal septicemia, and his immediate performance of abdominal section without unfavorable results. Since that time this subject has received much attention from the medical profession of the United States and in Europe. At the meeting of the American Medical Association at New Orleans, in May, 1885, this question was brought before the section of obstetrics and gynecology in an able article by Dr. George F. French, of Minneapolis, Minnesota, in which he asserted that the accoucheur could with impunity resume practice after attendance on a case of puerperal fever, provided he first thoroughly disinfected himself. In support of his position, he read the opinions expressed by Sir Henry Savage and J. Knowlsley Thornton, of London; Hegar, of Freiberg; William Goodell, Robert Battey, T. A. Emmet, Henry O. Marcy, of the United States; Carl Schröder, Nussbaum, Richard Volkmann, and Esmarch, of Germany. In answer to the question, viz: "How soon after exposure to sepsis may the accoucheur resume practice?" the two first named answered that time was an all-essential element in the cleaning process. The third doubted whether a thorough cleaning was possible; but at any rate thought an interval of two or three days, together with cleaning, essential. The other nine expressed themselves in most positive terms, agreeing with the conclusion arrived at by Dr. French; all emphasizing the necessity of the most

careful and painstaking details of the cleaning process and change of clothing. Certainly, with the accumulated evidence before us and the many known antiseptics at our disposal, we may reasonably conclude that the obstetrician may resume practice, if he take the proper precaution to clean himself and change his clothing.

The question now is, how many of us will use the precautions strictly in detail; and, in the present light of science, are not those who have been exposed to sepsis reprehensible if they engage in obstetric practice without using these precautions.

While discussing this subject of puerperal septicemia, I desire to go a little further and discuss, to a limited extent, its treatment, because I believe that the most rational and scientific mode of treating the disease is to be found in what might be termed preventive measures. Now that the genital organs of puerperal women are regarded as the almost exclusive point of entry of the septic material into the system, we, in treating the disease, should always look to its source, and as far as possible remove the cause. When the septic germs have entered the blood, we know that they are beyond our reach; but in acute puerperal septicemia we know that the patient soon rallies from the shock, provided there are no more germs entering the blood at the point of infection. The indication for treatment there, is to neutralize the poison at the point of entrance, and to adopt measures calculated to sustain the system against that which has already been absorbed.

In any case of puerperal fever the vagina should be cleaned with a warm two to three-per-cent solution of carbolic acid, or corrosive sublimate 1:3000 every four to six hours. The vagina should then be carefully examined, except in mildest cases, and all abrasions or ulcers treated locally with iodoform, carbolic acid, or iodol. If it is found that the infection proceeds from the uterine cavity, and the temperature is high, I do not hesitate to wash it out, being always careful

that the os is well dilated. The vagina should always be washed out with a disinfectant before the inter-uterine injection is done, for fear more of the septic material be carried into the womb. I am aware of the great danger to be apprehended from inter-uterine injections, and would enter my protest against their indiscriminate use; but I have seen such striking results attained by them that I am forced to believe that he who fails to make use of the inter-uterine injection in a case of puerperal fever, with high temperature and offensive discharge, after having used the vaginal injections and other local treatments without result, has failed to do his duty to prevent a disease which might otherwise destroy his patient.

THE INFANT

AT BIRTH.

It is good practice to anoint the infant at birth with vaseline

before the vernix caseosa has time to dry, and then wipe gently with an old cotton rag. If the first application, made always with the fingers, is not sufficient, repeat in half an hour, or sooner, until the whole surface of the body, including the hair, is perfectly clean. If vaseline is not at hand, fresh lard, that is, lard which is not rancid, may be substituted. This work having been carefully accomplished, the nurse should be provided with a prescription for a simple antiseptic collyrium to be used if the eye-lids adhere, or if the eyes look suffused. The best collyrium in such cases may be made as follows:

R. Sodii boratis gr. xv;
Sodii chloridi gr. ii;
Acidi carbolic M. ii;
Aquæ destillatæ } aa ʒi.
Aquæ camphoræ }

M. ft. solutio.

Sig: Drop into the eyes *pro re nata*.

In case the lids swell and a yellow discharge appears between the lids, the quantity of the antiseptic collyrium should be increased to a pint, or more, and the nurse directed to stream it from an old rag into the inner canthus with the lids separated.

PATHOLOGY AND HYGIENE.

SANITARY MATTERS IN LOUISVILLE.	Louisville is just
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now suffering from typhoid fever in several circumscribed localities. The Polytechnic Society, last winter, invited the attention of the city engineer and the local board of health to the dangerous condition of a large number of the public wells, showing that these wells were subject to contamination from surface drainage.

Wherever the history of endemics of typhoid fever has been traced to their origin, it has almost invariably been found that the disease was propagated through contamination of the drinking water. One case of typhoid fever should, therefore, awaken suspicion in the minds of health officers.

Without desiring to make personal criticisms upon the health officer of Louisville, we think he can not escape a certain degree of censure for his failure to aid in the correcting or removal of the great danger to the public health from the frequent contamination of public wells from surface drainage.

The bigotry which ignorance always begets in the laity concerning matters medical at once suggests a personal motive for any criticism on the administration of the local health officer, but the editor of PROGRESS feels secure in the statement that the Louisville Health Officer might, without jeopardising his own official position, safely insist upon the closing of all the public wells in the city and the substitution of some other means of supplying water to the populace.

The Mammoth Store, on Market Street, has solved the problem by placing a fountain in front of its establishment for the convenience of pedestrians. This fountain is supplied from the water-works, and is so arranged that a very small expenditure for ice keeps the water at all times cool and palatable.

If the city would spend as much for ice

as it costs annually to repair the pumps—to say nothing of the well-covers—an abundance of ice might be had to supply fountains in such a way as to be secure against the danger of any sort of contamination, and at the same time vastly more convenient for the public. The fountains themselves would not be half so expensive as the pumps and the price of well-digging, and the danger to the public health from contamination of the water supply would be the leading items of gain.

FILTH DOES NOT CAUSE DISEASE.	To know what is proven, or to know the demonstration
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when one sees it, constitutes an essential prerequisite to any sort of scientific inquiry. Physicians are so accustomed to say filth causes scarlet fever, typhoid, and other forms of fever, that the people have generally come to conclude physicians know too little of the causes of disease; that the best of us are shrewd guessers merely. Now the medical profession itself is responsible in this matter. The people all know that the filthiest of human beings are not more liable to scarlet fever, diphtheria, or typhoid fever, than the most affluent, intelligent, and cleanly. It is not saying too much to assert that it is an insult to intelligence for members of the medical profession to sanction the idea that either of the diseases named above are not both infectious and contagious. This being true, they must always depend upon specific germs, and the media through which these are transmitted from person to person should be sought for and made known. The public should understand scarlet fever and diphtheria may be propagated through the air, or the drinking of water, or clothing, directly from person to person; that there is no such thing as a case of contagious infection by spontaneous generation. The seeds of the *materies morbi* can no more be generated *de novo* than a human being or an ox. Filth, therefore, in the gutters and about the premises of dwellings is dangerous, because

it affords nutriment to many forms of micro-organisms which produce disease in man; the danger being in the establishment of culture fields for the growth of these germs in situations where people are liable to breathe them, or where they find ready access to the wells and springs on the occurrence of every rain-fall sufficient to flush the surface drains. The water supply should be so well protected as to make contamination from surface drainage impossible.

THE MICROSCOPE IN DIAGNOSIS.

It seems incredible that any member of the medical profession

should be content to rely upon those means or agencies of diagnosis which were in use twenty-five years ago. It would appear, however, there are men yet practicing medicine who scorn to touch a microscope, and who stupidly proclaim, and undertake to establish by hearsay and traditional evidence alone, the presence of hereditary blood taints in all cases of *tuberculosis pulmonalis*. The same people rely upon percussion and auscultation alone as affording sufficient subjective evidence upon which to decide the vital question as to whether the subject has *tuberculosis*. In more than a score of cases of persons having ulcerated laryngitis, involving part of the epiglottis, experts in physical diagnosis were unable to discover the slightest impairment of the pulmonary function, while expectorated matter from the larynx was loaded with the *bacillus tuberculosis*.

The general practitioner of medicine must learn that *tuberculosis* is an infectious contagion, which invades the system through abraded surfaces only, and that it may and frequently does develop extensive local changes at the point of inoculation; its development is exceedingly slow in persons having no abnormal accumulation of lymph, while in the subjects of lymphatic engorgement, commonly called strumous people, the *bacillus tuberculosis* finds its most favorable soil for development, and is, therefore, rapid in its course.

Vol. 1, No. 3—10.

BOOKS AND PERIODICALS.

OFFICIAL REGISTER OF PHYSICIANS AND MIDWIVES, NOW IN PRACTICE TO WHOM CERTIFICATES HAVE BEEN ISSUED BY THE STATE BOARD OF HEALTH OF ILLINOIS, 1877-1886. SPRINGFIELD, ILL.: H. H. ROKER, STATE PRINTER AND BINDER. 1886. REVISED AND CORRECTED TO FEB. 10, 1886.

The labors of Dr. Rauch are, it is presumed, appreciated by the profession generally, not only in this country but abroad. To his labors alone are we indebted for the introduction of the standard preliminary requirement in all the best medical colleges of the country, and for the establishment of sharp lines of distinction between the qualified and unqualified practitioners. These lines of distinction, established by the Illinois Board of Health, are valuable, because they are based upon the curricula of the better class of colleges, and have the support of the laws of the State of Illinois. Attempts have occasionally been made in the courts to break down the effect of these wholesome laws, but the Board of Health, though suffering an occasional unimportant defeat upon some technical question, has always eventually been able to maintain its authority, and to execute the provisions of the legislative act which brought it into existence.

In the prefatory note we learn that in this Official Register appear the names, postoffice addresses, and other data for personal identification of 5,915 physicians to whom certificates have been issued by the Board. To this number are to be added 150 practitioners exempt from the provisions of the law by virtue of ten years' continuous practice prior to July 1, 1877, when the law first went into effect, making the total number of practitioners in the State of Illinois 6,065 of all classes. Of the 5,915 registered practitioners holding certificates from the Board, 5,107 furnished proof of the possession of diplomas or license from legally chartered institutions and licensing bodies in

good standing; 145 others are practicing under the certificates of the Board, issued after satisfactory examinations; 663 non-graduates hold certificates based on years of previous practice under the exemption clause, although these were not required to have certificates by the law. Quite a number of the 5,107 certified graduates and licentiates were exempt under the law, but appeared for registration to establish their professional status.

To show the improved character of the profession in Illinois, Dr. Rauch has prepared a table establishing the percentage of graduates and licentiates to the whole number practicing in the State. In 1877 this percentage was only forty-eight of the whole, while in 1886 it is eighty-seven. The percentage of non-graduates or unqualified practitioners according to law, but who still were permitted to do so under the ten years' exemption, in 1877, was fifty-two per cent; in 1886 this unqualified class represents but thirteen per cent.

In this register is a copy of the Illinois practice act, with a statement of the manner which is now followed by the Board for its enforcement. One of the great points has been the establishment both of a preliminary requirement and of a fixed standard in college curricula, and the ignoring entirely of all diplomas issued by colleges which do not adhere to this standard, both of preliminary requirement and course of education. Of course those colleges which are wanting in ability to adopt and maintain these requirements have bitterly opposed the Illinois Board; this opposition would appear to have resulted in great good to the profession, for it has led to the establishment in many other States of similar laws. A little more than two years ago the Secretary of the Kentucky State Board of Health undertook to have a law regulating the practice of medicine in this State amended so as to incorporate some of the most important parts of the Illinois law. The opposition of well-known teachers in some of our

schools secured the defeat of this attempt. The last legislature, but recently adjourned, was made up of such an unfortunate collection of demagogues and pot-house politicians, they wasted their time and never reached the bill, which had gone into what they call the orders of the day. It is confidently believed, however, by those best informed upon the subject, that the enactment of this most important and much needed law in Kentucky will constitute one of the early performances of the next legislature. We have in Kentucky a fair law as far as it goes, yet it is inoperative for want of certain details in relation to the manner of its enforcement.

The great work of our own State Board of Health in tracing up the sources and abating the causes of certain endemic diseases of a contagious nature has steadily won for the Board the respect of the people, and there is a wholesome and widespread public sentiment in Kentucky now which would favor sanitary legislation. We are confident that of the four medical colleges in Louisville there will be little or no hesitation upon the part of any to adopt the Illinois requirement, which practically characterized the policy and course of the Hospital College of Medicine from the time of its beginning in 1874. This institution has, therefore, much to be proud of as a pioneer in the establishment of universally recognized reforms in old methods of teaching, and elevating the standard of medical education. The Kentucky School of Medicine has announced its intention to adhere to the Illinois requirement, and the other schools will likely follow.

The register is creditable to the liberality of the law-making power of the State of Illinois, and to the eminent fitness of Dr. Rauch for the work in which he seems to find much pleasure. After all, it is not so much that good laws have been enacted, as that those we have are wisely administered, which we require for the advancement of the good work of preventing the causes of disease.

CORRESPONDENCE AND SOCIETIES.

LOUISVILLE
MEDICAL

SOCIETY.

MEETING OF AUGUST 26,
1886.

[Reported for PROGRESS.]

In the absence of the President, Dr. E. von Donhoff was called to preside.

Reports of cases being called for, Dr. Dudley S. Reynolds

reported an unseasonable prevalence of the *aspergillus albicans* in the external auditory canal, and in the nose and pharynx. Within the week he has made observations in two cases in which this fungus was deposited upon the tonsils and in the pharynx, and in both cases the family physician had supposed he had to deal with diphtheria. In one case, that of a girl thirteen years of age, there were some hysterical manifestations which, taken into consideration with the white deposit on the tonsils and in the larynx, led to the supposition a false membrane was developing in the trachea, and Dr. Reynolds was in that case called to do tracheotomy. The *aspergillus* never develops upon plain surfaces. It may develop in the external auditory canal, in the nasal passages, and in the convolutions in the lateral walls of the pharynx. From this situation it may spread a very short distance. There is never any inflamed base; it never penetrates to the connective tissues; its penicilium is formed at the expense of the surface epithelium, the fungus itself growing in heaps. It may be stated as an invariable rule that no diphtheritic membrane is ever observed upon an uninflamed surface. The false membrane of diphtheria is made up in fact of the mucous membrane upon which it seems to lie. It is a veritable necrotic metamorphosis of the membrane itself, while the *aspergillus* is a mould growing upon the surface merely. Two forms of *aspergillus*, namely the yellow and the white, are common in Louisville in certain damp, shaded places; in fact, I may say the *aspergillus* prevails so widely as at times to menace the health of the inhabitants of certain localities

in every city of the world. It was formerly thought that the *aspergillus albicans*, taking up its abode in the external ear, must inevitably lead to the destruction of a considerable part of the external drum membrane and produce permanent impairment of the hearing. Drs. Roosa and Pomeroy, of New York, were, in 1872, treating cases of *aspergillus* of the external auditory canal by applications of solutions of nitrate of silver varying from forty to sixty grains to the ounce of water. In the discussion of a case I remember well to have witnessed they both agreed the *aspergillus* must always lead to perforation. How much change of opinion subsequent experience may have wrought in the minds of these gentlemen, I am convinced from my own experience that tannin in solution is amply sufficient to destroy the fungus, which should be carefully removed from the ear by the aid of a cotton-wool mop, upon the end of a curved probe, which should never be larger than No. 2 of Bowman's graded scale of lachrymal probes, following the removal of the fungus in this way by dipping the cotton-wool mop into a tannin solution, by an application of carbolic acid solution, in the proportion of half a drachm of the acid to the ounce of distilled water. This plan of proceeding applies with equal force to the treatment of the fungus when deposited in the fissures of the tonsil, of the laryngeal membrane, or in the nasal passages. It will generally be found, however, that persons, at least in Louisville, who suffer from the presence of the *aspergillus* have at the same time what we call malarial complications; in other words, the fungus which causes intermittent fever is generally present in great abundance in the same localities in which the *aspergillus* flourishes. It is, therefore, nearly always necessary to administer quinine in some form, and in the chronic cases arsenic may be found necessary. It is a fact all too seldom observed that *aspergilli* are occasionally deposited in more or less extensive colonies in the ciliated epithelium of the trachea, and some-

times the smaller bronchiæ. Germain Séé has observed it in the bronchiæ and recognized it as the cause of a dangerous form of bronchitis.

Dr. Taylor wished to remark he had often observed the grey deposit in cases of tonsillitis, and could not understand why the more painful form of suppurative tonsillitis might not in some way be associated with the superficial form due to the aspergillus. He felt much interest in the subject and wanted it further elucidated.

Dr. Reynolds said he did not believe any merely superficial irritation could cause suppurative inflammation of the tonsil nor of any other lymphatic gland. The frequent association of aspergilli and other fungi might easily explain the frequent association of local abscesses, intermittent fever, neuralgia, etc., with local deposits of aspergillus, either in the fissures of the tonsil or elsewhere.

Dr. J. T. Keegan reported the case of a man, about twenty-two years of age, who had been drawn into the large cog-wheel of a machine, the cogs being about two inches wide, and about four and one half or five inches apart. The young man was drawn in such a position that the cogs struck him on the left side of the sternum over the fifth rib, extending obliquely around to the left side of the spine, crushing the fifth and sixth ribs with each succeeding cog, and wounding the skin and part of the pectoralis-major in such a way as to draw it upward and over the shoulder, making a lacerated and contused wound of the soft parts from the sternum to the spine, and of the detached flaps including the pectoralis-major, the arm being thrown violently upward and backward, while the axillary region was terribly mutilated. The shock from this injury was great, lasting for several hours, in spite of the most active stimulation. The flap was pulled down, after removing the dirt and other foreign matter from the wound, and stitched loosely in its place as nearly as could be; he was reason-

ably certain at the time the intervening contused tissue would slough so that no attempt was made at accurate readjustment of the lacerated tissues. When re-action set in the pain in the axillary region was so intense as to necessitate the constant use of opium, and occasionally chloroform, especially when the nature and extent of the injury were re-examined for the purpose of making sure nothing had been overlooked. Poultices of warm flax-seed meal were applied over the whole wound, with a view of maintaining equable temperature to favor restoration of circulation in the contused parts. These were changed at intervals of four to six hours, and at the end of three days a carbolic wash, made of a drachm of carbolic acid to the pint of water, was used. Suppuration having set in, the nature of the dressing was somewhat changed.

On the fourth day it was observed that erysipelas had set in, extending even to the inferior extremities of the left side. The man had pleuro-pneumonia complicated with pericarditis. He finally recovered, however, and, although there was considerable contraction and depression of the walls of the chest upon the wounded side, respiratory movements were fairly good, and now, four years after the injury, the man is in good health; of course the left lung is crippled by the pressure, but the recovery of the compound fractures of the ribs and the very small amount of deformity about the shoulder are looked upon as evidences of an extraordinary recuperative power in the patient.

The report was discussed by Drs. Taylor, Godfrey, Leber, von Donhoff, and others.

Dr. Godfrey, Surgeon to the United States Marine Hospital, Louisville, reported the case of a man, middle-aged, who occasionally suffers with a nagging pain in the loins, greatly aggravated during defecation. By severe palpation Dr. Godfrey was able to make out the considerable displacement of the left kidney. The man goes on for months in comfortable health

without experiencing any sensation of discomfort, when suddenly, and without apparent cause, this nagging and severe pain in the loins is set up. There is no history of any injury in the case, and the therapeutical indications are quite obscure. In order to make the diagnosis entirely certain, in addition to severe palpation, free and full doses of the bi-tartrate of potassa were administered. When defecation could be performed without any straining at all, when the passage was absolutely unrestrained, no discomfort followed; but on the slightest increase of muscular tension or deepening inspiration, the pain at once became severe.

Dr. Leber said Niemeier had formulated sixty-two cases, most all of them occurring in women; the displaced kidney being uniformly upon the right side. He considered the only danger to be apprehended in such cases arises from the occasional or accidental twisting of the vessels and nerves attached to the gland. The case occurring in his own practice which was attended by nausea in addition to lumbar and abdominal pains of a distressing character had by post-terial treatment improved until the unpleasant symptoms had entirely ceased. This patient was a young widow, who afterward married and bore several children. The falling about of the kidney within a small radius from its original point of attachment had been noticeable for years, but with succeeding prognosis this condition has finally entirely disappeared, and it would seem the kidney has again become attached to the adipose cushion provided by nature.

Dr. Taylor thought the so-called falling kidney amounted to a congenital defect in the attachments of the gland, that it called for no treatment, and was in no sense a pathological state, but merely a deformity.

Dr. J. M. Clemens has heard of attempts at stitching the kidney back into position, which he regarded an entirely unwarranted proceeding.

Dr. von Donhoff said no treatment was demanded in such cases until that condition

of mechanical twisting, referred to by Dr. Leber, came on, and this sometimes develops suddenly such distressing symptoms as to indicate imminent peril to the patient. In such a state operative interference becomes at times necessary.

Dr. Godfrey said he remembered an account of a remarkable case in the practice of the late Dr. Greenville Dowell, of Galveston. Dr. Dowell had in that case found the kidney falling seven or eight inches out of its normal position. The patient being distressed with pain the doctor seized the kidney with his hand and passed a long needle through the parietes of the abdomen and into the kidney, drawing it back to its proper place in the lumbar region; here it finally contracted adhesions and remained in place, the patient being free from discomfort for years; finally this same patient suffered rupture of the attachments of the kidney, which again became a source of great distress, and when she appeared to be in extremis, Dr. Smythe, of New Orleans, extirpated the kidney, and the patient made a good recovery.

Dr. Reynolds said he had listened with great interest to the reports of the cases and the discussions. He felt that it was time to have a more definite understanding concerning the operative interference which had been described as stitching the kidney into its position. He had heard the practice of Dr. Dowell severely criticised in this case, and he thought justly. He considered it a grave proceeding to drive blindly through the walls of the abdomen a large spaying needle, armed with a thread, to be drawn through the kidney in order to sew it to the abdominal walls. There was not only danger of piercing important vessels which, by evacuating their contents into the peritoneal cavity, may cause great distress and might give rise to disease of the kidney, or the distressing consequences of a slow internal hemorrhage from the fall. He thought surgeons in speaking of such matters should name the precise part, whether the capsule of the kid-

ney or some other part, which they undertook to include in the sutures, and that they should likewise be required to name the precise part of the abdominal tissue included in this suture. Stitching the kidney carries the idea, to the inexperienced person, of passing a needle and suture through the gland itself. He does not believe any one, except Dr. Dowell, would undertake to say that the suture might be carried through the kidney, but rather through its capsule, through some of the connective tissues surrounding the pelvis of the organ.

Dr. Godfrey replied, by saying Mr. Lawson Tait had recently cut open the kidney with a bistoury, passed his finger into the pelvis of the organ in search of a calculus, and afterward stuffed a quantity of cotton into the wound with which he wiped it out. The patient made good recovery, and was not considered to have been imperiled by the operation.

Dr. von Donhoff exhibited two fingers from the right hand of an old servant, who had long suffered from syphilitic eczema. The fingers were adherent and very much distorted by cicatricial contraction. The patient had eczema of the scalp, and, in fact, suffers with a variety of the distressing phenomena of old syphilis. These fingers were removed because they were painfully distorted, and a constant source of annoyance to the comfort of the patient. Dr. von Donhoff thinks this a sufficiently rare and severe type of syphilitic eczema to warrant him in exhibiting the specimen and reporting the case.

It was believed this patient had contracted the disease during his attendance upon a Turkish-bath establishment, and that it had occurred by inoculation of a superficial wound in the palm of the hand.

Dr. Keegan would like to know whether this might not have had something to do with the aggravated type of eczema subsequently occurring at this point. The connective tissue incident to the development of the cicatrix in the final healing of the pri-

mary sore eventually created aggravated conditions for the development of a vicious type of eczema, such as Dr. von Donhoff had described.

Dr. Leber took occasion to say in connection with the treatment of syphilis that inunction with the oleate of mercury, after the plan suggested by Dr. Shoemaker, of Philadelphia, leaves nothing to be desired in the cases of infants and children. He administers in such cases absolutely no medicine, relying entirely upon inunction with oleate of mercury.

NINTH INTERNATIONAL MEDICAL CONGRESS.

ANNOUNCEMENT

By order of the Executive
Committee of the
Congress.

HENRY H. SMITH, M. D.,

Chairman

R. J. DUNGLISON, M. D.,

Secretary.

The Ninth International Medical Congress will assemble in the City of Washington, the Capital of the United States, on Monday, September 5, 1887, at 12 o'clock noon, in accordance with the arrangements made at Copenhagen,

in August, 1884.

PATRONS.

The President of the United States, the Hon. Grover Cleveland; the Secretary of State, the Hon. Thomas F. Bayard; the President of the Senate of the United States, the Hon. John Sherman; the Speaker of the House of Representatives of the United States, the Hon. John G. Carlisle.

PROPOSED OFFICERS OF THE CONGRESS.

PRESIDENT.—Nathan S. Davis, M. D., LL.D., Professor of the Principles and Practice of Medicine and Clinical Medicine, Chicago Medical College, and of Mercy Hospital, Chicago, Illinois.

VICE-PRESIDENTS [as far as appointed].—McCall Anderson, M. D., London, England. Mr. Thomas Annandale, Professor of Clinical Surgery, Edinburgh University, Edinburgh, Scotland. Professor Dujardin-Beaumetz, M. D., Paris, France. Cuthbert Hilton Golding Bird, M. D., Professor of Physiology, Guy's Hospital, London, Eng-

land. Professor Carl Braun, M. D., Vienna, Austria. William Brodie, M. D., Emeritus Professor of Principles and Practice of Medicine and Clinical Medicine, Detroit College of Medicine, Detroit, Michigan. W. W. Dawson, M. D., Professor of Surgery and Clinical Surgery, Medical College of Ohio, Cincinnati, Ohio. Thomas M. Dolan, M. D., Halifax, England. F. R. Frazer, M. D., Professor of Materia Medica and Therapeutics, University of Edinburgh, Edinburgh, Scotland. J. A. Grant, M. D., Ottawa, Canada. J. A. S. Grant, M. D., Cairo, Egypt. A. L. S. Gusseraw, M. D., Professor of Obstetrics, Berlin, Prussia. Dr. Hans Ritter von Hebra, Vienna, Austria. Dr. E. Klein, London, England. Mons. Le Baron H. Larrey, Paris, France. Sir William MacCormac, Surgeon St. Thomas' Hospital, London, England. Mr. Geo. B. Macleod, Professor of Surgery, Glasg w, Scotland. John S. McGrew, M. D., Honolulu, Hawaiian Islands. E. M. Moore, M. D., LL.D., Rochester, New York. Professor Von Monseil, Bonn, Prussia. Dr. M ller, Berlin, Prussia. William Murrell, M. D., London, England. Charles D. F. Phillips, M. D., M. R. C. S., late Lecturer on Materia Medica and Therapeutics, Westminster Hospital, London, England. Richard Quain, M. D., Professor of Anatomy, London, England. Tobias G. Richardson, M. D., Professor of General and Clinical Surgery, Medical Department, Tulane University, New Orleans, Louisiana. Mons. P. Ricord, Paris, France. Professor John Burdon Sanderson, M. D., London, England. Lewis A. Sayre, M. D., Professor of Orthopedic and Clinical Surgery, Bellevue Hospital Medical College, New York. Dr. Mariano Semmola, Professor of Experimental Therapeutics, University of Naples, Italy. Dr. Leopold Servais, Antwerp, Belgium. J. M. Toner, M. D., Washington, D. C. Dr. P. G. Unna, Hamburg, Germany. Professor F. Winckel, Dresden, Saxony. The President of the American Medical Association. The Surgeon-General

of the United States Army. The Surgeon-General of the United States Navy.

SECRETARY GENERAL.—John B. Hamilton, M. D., Supervising Surgeon General of the United States Marine Hospital Service; Professor of Surgery, Georgetown University, D. C.; Professor of Surgery, Chicago Polyclinic.

TREASURER.—E. S. F. Arnold, M. D., M. R. C. S., Newport, Rhode Island.

CHAIRMAN OF THE FINANCE COMMITTEE.—Richard J. Dunglison, M. D., Philadelphia, Pennsylvania.

CHAIRMAN OF THE EXECUTIVE COMMITTEE.—Henry H. Smith, M. D., LL.D., Emeritus Professor of Surgery in the University of Pennsylvania, Philadelphia, Penn.

CHAIRMAN OF THE COMMITTEE OF ARRANGEMENTS.—A. Y. P. Garnett, M. D., Emeritus Professor of Clinical Medicine, Columbia University, Washington, D. C.

ASSOCIATE SECRETARIES OF THE CONGRESS.—William B. Atkinson, M. D., Philadelphia, Pennsylvania; G. B. Harrison, M. D., Washington, D. C.

The Congress will consist of such members of the regular medical profession as shall have registered and taken out their ticket of admission, and of such other scientific men as the Executive Committee of the Congress shall deem it desirable to admit. The books for the registration of members will be open from 9 A. M. to 5 P. M. on Thursday, September 1, 1887, and on each subsequent day during the Session, under the charge of the "*Reception Committee*." Any member desiring to anticipate this registration, can apply by letter to the Secretary General and forward his dues, with his address in full, when a receipt will be returned.

The dues of membership for residents of the United States will be ten dollars (\$10). There will be no dues for members residing in other countries. Each member will be entitled to receive a copy of the "*Transactions*" of the Congress, when published by the Executive Committee.

The General Sessions of the Congress will be devoted to the transaction of business and addresses and communications of general scientific interest by members appointed by the Executive Committee. A printed "Programme" of the Sessions will be presented to each member on registering. A printed "Order of Business" for each day will also be issued.

The work of the various Sections will be directed by the President of the Section, and the order will be published in a daily programme for each Section. Questions and topics that have been agreed on for discussion in the Sections shall be introduced by members previously designated by the titular officers of each Section. Members who shall have been appointed to open discussions shall present to the Secretaries of the Section, in advance, statements of the conclusions which they have formed as a basis for the debate.

Brief abstracts of papers to be read in the Sections shall be forwarded to the Secretaries of the proper Section on or before *April 30, 1887*. These abstracts shall be treated as confidential communications, and shall not be published before the meeting of the Congress. Papers relating to topics not included in the list of subjects proposed by the officers of the Sections, may be accepted after *April 30, 1887*, and any member wishing to introduce a topic not on the regular lists of subjects for discussion shall give notice of the same to the Secretary General at least twenty-one days before the opening of the Congress. The titular officers of each Section shall decide as to the acceptance of such proposed communications, and the time for their presentation. No communication shall be received which has been already published or read before a Society.

The official languages of the Congress shall be English, French, and German. Each paper or address shall be printed in the "*Transactions*" in the language in which it was presented. Preliminary abstracts of papers and addresses shall also be printed in

the language in which each is to be delivered. All discussions shall be printed in English.

The officers of the Congress and the officers of the Sections, including all Foreign officers, will be nominated to the Congress by the Executive Committee at the opening of the first Session. A partial list of the officers to be nominated (except the members of Council of the different Sections, the list of whom is at present imperfect), is offered herewith.

The Executive Committee cordially invites members of the regular medical profession, and men eminent in the sciences collateral to medicine, in all countries, to participate, in person or by papers, in the work of this great humanitarian assembly. Communications relating to appointments for papers to be read in the Congress should be addressed to Dr. John B. Hamilton, Secretary General of the Ninth International Medical Congress, Washington, District of Columbia. All questions or communications connected with the business of the Executive Committee should be addressed to Dr. Henry H. Smith, Chairman of the Executive Committee of the Ninth International Medical Congress, Philadelphia, Pennsylvania. Gentlemen named in any position in the Congress are requested to notify the Chairman of the Executive Committee, as soon as practicable, of any error in the name, title, or address in this circular.

Ladies in attendance with members of the Congress, and those invited by the "Reception Committee," may attend the General Sessions of the Congress when introduced by a member. They will also be invited to attend the social receptions. The Executive Committee reserves the right to invite distinguished persons to any or all the meetings of the Congress. The attendance of medical students and others interested in the work of the various Sections or in the general addresses delivered in the Congress will be permitted, on the recommendation of the Secretary General or the officers of a

Section, on their taking out from the Registration Committee a general ticket of admission, fee one dollar (\$1.00); but such persons can not take part in the proceedings.

All communications and questions relating to the special business of any Section, must be addressed to the President or one of the Secretaries of that Section. As many details of the Congress and numerous appointments of officers are yet to be completed, other circulars will be issued from time to time, as circumstances may demand.

The following is the list, as at present completed:

EXECUTIVE COMMITTEE OF THE CONGRESS.	Henry H. Smith, M. D., LL.D., Chair- man. N. S. Davis, M. D., LL.D. John B. Hamilton, M. D.
	E. S. F. Arnold, M. D. Richard J. Dung- lison, M. D., Secretary. Abram B. Arnold, M. D. William T. Briggs, M. D. De Las- kie Miller, M. D., Ph. D. James F. Har- rison, M. D. F. H. Terrill, M. D. Wm. H. Pancoast, M. D. John H. Callender, M. D. Alonzo B. Palmer, M. D., LL.D. J. Lewis Smith, M. D. E. Williams, M. D. S. J. Jones, M. D., LL.D. William H. Daly, M. D. A. R. Robinson, M. D. Joseph Jones, M. D. Albert L. Gihon, M. D. John P. Gray, M. D., LL.D. Jona- than Taft, M. D. Frederick S. Dennis, M. D. A. Y. P. Garnett, M. D.

PRESIDENTS OF SECTIONS.	GENERAL MEDI- CINE.—Abram B. Ar- nold, M. D., Profes- sor of Clinical Medicine, College of Physi- cians and Surgeons, Baltimore, Md.
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GENERAL SURGERY.—William T. Briggs, M. D., Professor of Surgery, University of Nashville, Nashville, Tenn.

MILITARY AND NAVAL SURGERY AND MEDICINE.—Henry H. Smith, M. D., LL. D., Emeritus Professor of Surgery, University of Pennsylvania, and formerly Surgeon-General of Pennsylvania, Philadelphia, Pa.

OBSTETRICS.—DeLaskie Miller, M. D.,

Ph. D., Professor of Obstetrics, Rush Medical College, Chicago, Ill.

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PROGRESS
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CAUSES OF
INSANITY.

IN an address on some of the causes, and the prevention of insanity, delivered to the Pennsylvania State Medical Society last June, by John T. Carpenter, of Pottsville, may be found some very striking illustrations of the relations of the family physician in general practice to the insane.

Dr. Carpenter says; "It is well at this era of our national life for the doctor of medicine to be what his title implies, a teacher; and, to combine, as was done in distant ages, the sacred offices of physician and of prophet. It is for our profession to utter prophetic warning against the habits, the pursuits, and the tendencies which unsettle men's minds, and brings misery upon all their future. It is our duty to point out the dangers of excited, over strained, and ill-regulated mental habits." Dr. Carpenter continues in this strain at great length, and with great force, considering what he is pleased to term the neurotic tendencies, the hysterical temperament, and the habit whole families sometimes have of freely indulging their passions. In fact, he handles in a very delicate way some of the causes of insanity, under the headings indicated, without ever alluding to the great agent of prevention in the early establishment in every household of a

well regulated code of rules for the observance of every member, and, above all, the necessity of teaching to every child the law of obedience to its superiors, by which means alone due regard may be had for the feelings and rights of others, and for those ennobling traits of self-abnegation which characterise the better classes of humanity in all nations.

The most important cause of the so-called neurotic temperament seems to have almost entirely escaped Dr. Carpenter's notice. Even the best regulated family may occasionally suffer the introduction of unwholesome foods upon its table, or, from a mistaken judgment, adopt an entirely erroneous plan of selecting the best articles of diet for general use; in this way the gastro-intestinal tract is disturbed in its functions, even irritated. Insufficient sleep accompanying the impaired nutrition disturbs the temper of an individual whether young or old, and in this way the so-called neurotic temperament is developed. Though such a person may, in early life, be obliged to yield obedience to the head of the family, and may entertain due respect for the rights of his fellow creatures, yet no one will pretend to say such a disturbed state of nervous organization is in any way fit to become the head of a family, to undertake the responsibilities and duties of an administrator of a refined circle, which shall include the moulding of character and the development of those principles of government in the household which may fit its younger members for a healthful existence physically and mentally.

UNIVERSITY OF
EDINBURGH.
RECEPTION TO
PROFESSOR TARNIER.

The 2d of August, in Edinburgh, at the annual reunion in which the degrees of the University were conferred, the immense hall of the synod was crowded. In the name of the Senate of the Academy, four persons received the honorary title of doctor.

Here is the account given in the Edin-

burgh Journal of the ceremonies in which the Professor of the Faculty of Paris was concerned. Professor Kirkpatrick, Secretary of the Senate, said, in addressing the Lord President Inglis, Chancellor of the University: "I have the honor of presenting to you M. Stéphane Tarnier [repeated applause]. Dr. S. Tarnier, Professor of Obstetrics in the Faculty of Medicine of Paris, Surgeon to the Maternité, Member of the Academy of Medicine, and of other scientific societies. Commander of the 'Legion of Honor.' On the Centennial occasion in 1884, he received the title of doctor, which was conferred upon him as one of the most noted living obstetricians. Among the great services which he has rendered to science and humanity, it is necessary to note, first, antiseptic precautions in obstetrical practice, which is now generally accepted; the invention of a *Couveuse*; the discovery of new methods for diminishing the mortality of children, and above all the considerable improvement which he has made in the construction of Chamberlain's forceps, modified later by Levret. M. Tarnier has also contributed much to the progress of obstetrics by the publication of his admirable 'Treatise,' and by other writings; and he has drawn about him a coterie of enthusiastic pupils, full of zeal, whose excellent works have increased the renown of this great scholar and physician. For these reasons he is eminently fitted to receive the title which I propose to the Lord Chancellor to confer upon him."—*Le Progrès Medical*, August 14, 1886.

POST-MORTEM
EXAMINATION OF
KING LUDWIG
OF BAVARIA.

observed for some years at the home of the King of Bavaria, showing from a mental alienation that heredity has equally played a part. The examination of the injuries to the skull and brain were much more interesting

—thick scalp, small skull, a little asymmetrical. The vault of the skull was extremely slender; the frontal and sagittale sutures ossified upon the internal face. The frontal presented some osteophytes of variable volume upon the internal face; the superior longitudinal venous sinus was enormously dilated posteriorly, contracted in front on a plane with the ethmoid; the granulations of "Pachioniy" project outward; the dura-mater was thick, especially in the frontal region, and very hyperemic; the sphenoid presented some exostoses; the sella turcica was asymmetrical, porous and friable; the sinuses of the base were engorged with a dark, bloody fluid; the weight of the brain was 1,349 grammes; the arachnoid was thick to a large extent, on a level with the frontal circumvolution, ascending left in the anterior part, and from the beginning of the first frontal circumvolution the arachnoid and the pia-mater were contracted, some adhesions formed a thickening the size of a franc piece at the same place; the vault of the cranium was reduced to the thickness of a sheet of paper; many circumvolutions were stunted; the cerebral substance was hyperemic, and presented a certain degree of softening; the examinations of the other organs were of no consequence; the stomach presented chronic catarrhal lesions.—*Le Progrès Medical*.

PROF. N. S. DAVIS.

At the British Medical Association recently a delegation of officers of the Ninth International Congress, headed by its President, Prof. N. S. Davis, of Chicago, and a delegation from the American Medical Association, including Pancoast and Shoemaker, of Philadelphia, appeared to invite the British Medical Association, and through it the medical profession of Great Britain and Ireland, to visit the United States and attend the Congress to be held at Washington, beginning September 5, 1887. These gentlemen were most cordially greeted by the British Medical Association, and our

most noble and distinguished Prof. Nathan S. Davis was invited to address the association. In the report of the British Medical Journal of August 14th, it is said the interests of the Congress lost nothing of dignity or of interest in the worthy and grave words of Dr. N. S. Davis, one of the oldest and most respected members of the profession in America, and one who holds very much the same relation to the American profession as Sir Charles Hastings long held to the profession of Great Britain. The British Medical Journal is quite correct in its statement, the profession of Europe will be sure to receive a cordial welcome in America, unlimited hospitality, boundless kindness, and brotherly affection. We have here indeed a great country, and, as we justly conclude, a great profession, both in numbers and good works.

EXCHANGING SLIDES.	Dr. Jas. E. Reeves, of Wheeling, West Virginia, and Dr. A. H. Ohmann-Dumesnil, of St. Louis, both of them experts in microscopy, are kindly disposed to exchange slides with other workers in this field. It might interest stu- dents to know they may obtain elegantly stained mounted preparations of various forms of microbes for a small sum by ad- dressing either of these gentlemen. The pathological laboratory of the Hospital Col- lege of Medicine, Louisville, is always prepared to supply cabinets of assorted pathological tissues, besides the disease- producing fungi.
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OPPOSED TO THE CODE AND THE CONGRESS.	The announcement of the <i>St. Louis Weekly Review</i> that the pres- ent Faculty of Jeffer- son College oppose the American Medical Association, and have already declined to take any interest in the preparations for the Ninth International Medical Congress, cre- ates painful surprise in the minds of many. If it is as bad as the <i>alumnus</i> who writes to the
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Review says, then indeed old Jefferson has been struck with a blighting hand. There may have been no personal grounds for the retirement of Pancoast, Atkinson, and Shoemaker, but they certainly did not retire from teaching, as is plainly manifest in their presence in the Faculty of the *Medico-Chirurgical College*. If the desire for liberty in consultations has seized the Faculty of old Jefferson College, it is evidence of declining business; and this, after all, may have influenced the resignations. When the few fortunate gentlemen in the East, who have long subsisted largely upon fees from Western patrons in colleges and in practice, kill the goose that laid the golden egg, they must not blame Western men for organizing their own schools and societies.

“Westward the Star of Empire takes its way,” has been observed already, and is now well recognized in the medical profession.

NAILERS’ CONSUMPTION.	Dr. Jas. E. Reeves, the accomplished mi- croscopist and sanita- rian, has observed in exceptional cases only the <i>bacillus tuberculosis</i> in the <i>sputum</i> of what is called the nailer’s consumption. The pulmonary diseases so frequently ob- served in persons engaged in the nail mills are seldom tuberculous. The same may be said of the coal miners.
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R. MAUPIN FERGUSON, M. D.	A prominent and rising young specialist of Louisville, died at Basle, Switzerland, on the 10th of August. His remains were shipped home and de- posited at Cave Hill Cemetery on Sunday, September 5th. Dr. Ferguson had been the subject of “hay fever” for several months, which had been greatly aggravated by ap- plications of chromic acid, to which he had been induced to submit, and went abroad in search of a more invigorating atmosphere, and to seek rest from the cares of business. He was an amiable, accomplished, and dig- nified gentleman.
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HEAD LINE TITLES. The head-line style of journalism may suit the secular newspaper, but an essay or any other form of communication in a magazine should have a title which, in as brief and technical terms as possible, should indicate the subject merely.

The headline form of a sort of table of contents looked well in Bennett's Clinical Medicine, but it looks out of place, and in bad taste in a brief essay. Gentlemen writing papers to publish should gracefully allow the editor of the periodical the privilege of writing titles in such uniform style as to preserve the general form of the magazine.

Thousands of valuable contributions have been made under such heading, or title as, "A Clinical Lecture Delivered by," etc., which treated of important subjects, and were lost for want of a suitable title.

A NEW DENTAL COLLEGE. The curators of Central University of Kentucky recently undertook to establish a dental department upon the grounds of the Hospital College in this city. The work is progressing favorably, and the buildings are to be completed before the 1st of December, prox. The organization embraces first-class talent, and the equipment is to be thorough. Prof. A. Wilkes Smith, Dean of the Faculty, announces a large class already matriculated for the session, which begins Jan. 20, 1887.

OUR EXCLUSIVE RIGHT. It should be remembered editors and publishers of periodicals have a right to expect honesty and candor in their contributors. It is expected no contributor to PROGRESS will feel at liberty to supply the same matter to any other magazine.

It is said eating halibut liver causes a disease similar to scarlatina. Eklund found the plaxscindens in oysters taken from the culture beds at Stockholm, and many persons have suffered a form of urticaria from eating fried crabs.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

OUR ADVERTISERS, SUBSCRIBERS, AND CORRESPONDENTS Will find at the PROGRESS pavilion, in the northeast portion of the Southern Exposition building, a resting place, with files of all medical publications, foreign and domestic, and conveniences for writing and mailing their letters. We have also at the pavilion a number of specialties from our advertisers, with samples for the profession.

WE have samples, beautifully put up, of Frederick Stevens & Co's. preparations at the PROGRESS pavilion in the Exposition building, and will be pleased to hand them to practicing physicians, or others interested.

WE have samples of the two styles of Barry's Clinical Thermometer at the PROGRESS pavilion; one in metal case, with chain and guard-pin, is particularly deserving the attention of the profession.

PHYSICIANS will run over this list and see if there is not *something*—the dealers pay to inform them of—that will better their work or lessen their labor:

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F. W. BATHRICK, M. D.

Battle Creek, Mich.

BROOKLYN, May 21. 1884.

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recommended it to dozens of people, and am being constantly sent to by strangers, as well as by members of my own family, for information in regard to MELLIN'S FOOD.

Yours very sincerely,

MRS. WALDO J. MORSE.

AN IMPROVED METHOD OF MEDICATION. —If the physician of the last century, who made his infusions and decoctions and pills in his own primitive laboratory, could be restored to the practice of his profession at the present day and have at his command the variety of medicinal preparations in concentrated and palatable form that the enterprise and skill of pharmacists have introduced, he must feel as if his occupation were gone, or certainly that portion of it which had to do with the preparation of medicines. The improvements in pharmacy have been so many and important that we doubt if there are many physicians to-day who have kept pace with them and who are fully informed regarding the preparation of drugs and methods of administering them acceptably to patients, and yet given equal opportunities and equal medical acquirements. That physician who applies in his practice the improved methods pharmacy has provided and is constantly adding to reaps the largest share of pecuniary success. Since the discovery of the subcutaneous method of medication many drugs have been prepared in forms which admit of their being administered hypodermically. The convenience and accuracy of this method must grow to be more generally appreciated, and we doubt not it will in time supersede in many cases the exhibition of medicine *per os*. The improvement in hypodermic syringes and the manufacture of a sufficient variety of tablets to meet the requirements of practice has given a further impetus to the hypodermic method. It will be gratifying to our readers, therefore, to learn that Messrs. Parke, Davis & Co., with their characteristic prompt recognition of the demands of the profession, now offer a very complete line of HYPO-

DERMIC TABLETS, which they supply in small glass tubes convenient for carrying in the pocket or medicine case, each tube containing twenty-five tablets. For the convenience of physicians they have also devised a pocket case, containing an improved hypodermic syringe especially adapted for the use of these tablets and six tubes of tablets. Any formula which physicians may desire, and which can be made into tablets, will be manufactured to order. We believe this method of medication can not fail to become more and more popular as its advantages grow to be appreciated.

COMMENTS OF THE PRESS.

PROGRESS is the title of a monthly medical journal begun July, 1886, in Louisville, Ky., under the editorship of Dr. Dudley S. Reynolds—forty-eight pages, \$2 a year. The artistic style of the publication is strikingly attractive, the contributions are good, and the editorial management is characteristic of the well-drilled editor. He has simply been resting since he had charge of the *Herald*, which he so ably conducted. He returned to editorial duty refreshed by his vacation, and improved by his opportunities for study. We gladly welcome the exchange.—[*Virginia Medical Monthly*.

PROGRESS, the new medical journal of Louisville, edited by Professor Dudley S. Reynolds, is to be a success. The first number, just issued, contains twenty-two pages of advertisements; this insures its financial success, without which a journal is nothing. It has forty-eight pages of excellent reading matter, arranged in a neat and novel way, which renders it most attractive. PROGRESS is the neatest of the "new departures" that has appeared. The editorial work is, of course, of the highest order.—[*The Kansas City Medical Index*.

PROGRESS.—The first (July) number of Dr. Dudley S. Reynold's new venture in medical journalism, bearing the above suggestive title, has at last come to hand, and finds a place ready for it upon our exchange table. It is a handsome forty-eight page, double column monthly, full of matter of interest to "students and practitioners of medicine," to whose use and benefit it is formally dedicated. Dr. Reynolds is not a novice in medical journalism. Louisville has many distinguished physicians, but none of them are better known, or more highly esteemed, at home and abroad, than he. What

he writes, and what he selects from the writings of others, will always be well worth reading, and therefore we predict for PROGRESS a long and successful career. At any rate we know it will deserve success, which is sometimes better than achieving it, and the *St. Louis Medical and Surgical Journal*, the oldest medical monthly in America, tenders to PROGRESS, the youngest, a hearty and sincere welcome. *Semper sit in flore!*—[*St. Louis Medical and Surgical Journal*.]

PROGRESS is the title of a new "monthly magazine for students and practitioners of medicine," edited by Dudley S. Reynolds, of Louisville, Kentucky, formally editor of the *Medical Herald*. It is clear, clean, and pretty, and shows that it is edited and printed by experienced men. The style used to display title of article and name of contributor is "English, you know," but pleasing and in good taste. We give the new-comer a hearty welcome and write PROGRESS on our exchange list.—[*The Physician and Surgeon*.]

PROGRESS is a tastefully arranged, well printed, and well edited journal. The fact that it is under the management of that veteran editor, Reynolds, is assurance of the high character and general excellence of its contents. We wish it success.—[*St. Joseph Medical Herald*.]

The initial number of this journal, which we have before us, is filled with valuable literature, tastefully presented, and is sufficient warrant of the tone and character of the magazine. The contents is made up entirely of original articles. We bid it welcome, and wish for it a large share of prosperity.—[*The Dental Practitioner*.]

"PROGRESS" is the title of a new monthly medical journal edited by the experienced journalist, Dr. Dudley S. Reynolds, and published in Louisville, Ky.—[*The Medical Record*.]

PROGRESS.—This is the name of a new medical journal, the first number of which we have received from Louisville, Ky. It is handsomely printed, and under the able editorial direction of Dr. Dudley S. Reynolds. We are sure the success of PROGRESS will be rapid and great.—[*St. Louis Courier of Medicine*.]

While the field of journalism is certainly well filled, we can still welcome any worthy competitor. If the succeeding issues of PROGRESS keep up the high standard set by the opening number, Dr. Reynolds will not be long in winning a high place for his new monthly. There is not an article in the copy before us that is not well worthy of perusal.—[*The Medical World*.]

"PROGRESS" is the title of a new medical monthly, edited by Dr. Dudley S. Reynolds, of this city. It is beautifully printed and gives evidence of judicious editorial work. We welcome our new neighbor, and wish it a prosperous career.—[*The American Practitioner and News*.]

Dr. Dudley S. Reynolds, of Louisville, has returned to the journalistic field with a monthly PROGRESS. He has a good table of contents, and we hope will meet with gratifying success.—[*The Medical and Surgical Reporter*.]

PROGRESS.—A new monthly journal, edited by Dudley S. Reynolds, A. M., M. D., Louisville, Ky., has just reached us. It is neat in appearance, somewhat novel in arrangement, and in the hands of one who thoroughly understands his business. Send for specimen copy.—[*Mississippi Valley Medical Monthly*.]

"PROGRESS" is the name of a new medical journal just issued in Louisville, Ky., under the editorial guidance of our esteemed friend, Prof. Dudley S. Reynolds, A. M., M. D., who so ably conducted the *Medical Herald* some years ago. Dr. Reynolds is one of the best men in the State of Kentucky, an accomplished editor, and a skilled physician; and his journal, which is handsome and varied in contents, will prove a success.—[*The Southern Clinic*.]

Of making many journals there is no end, and among the best in general appearance and subject matter is "PROGRESS," the first number (July) of which lies upon our table. It is edited by Dr. Dudley S. Reynolds, of Louisville, Ky.—[*The Medical Visitor*.]

"PROGRESS" is the name of a new monthly magazine, edited by Dudley S. Reynolds, A. M., M. D., and published in Louisville. Dr. Reynolds has had editorial experience, and we congratulate him on again appearing harnessed for vigorous work.—[*The Epitome*.]

PROGRESS is the name of a new medical journal published in Louisville, Ky., and edited by Dudley S. Reynolds, A. M., M. D. The number before us is ably gotten up, and presents a neat appearance. Success to brother Reynolds.—[*The Southern Medical Record*.]

The make-up is good, the title points in the right direction, the contributions are able. Louisville is an important medical center; there is room for this magazine among the students and practitioners of medicine, and there is a cosy place reserved for it in our sanctum.—[*Medical Times*.]

PROGRESS, a monthly magazine for students and practitioners of medicine, edited by Dudley S. Reynolds, A. M., M. D. The first issue of this new candidate for public favor is before us, in a neat dress of gray and blue. The editor is well-known to the medical profession, and needs no special introduction. We wish "PROGRESS" a long and successful career, as it is our only brother.—[*The Medical Herald*.]

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN- TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES- SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF, AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., OCTOBER, 1886.

No. 4.

GENERAL MEDICINE.

TYPHOID FEVER IN LOUISVILLE.

BY

J. M. CLEMENS, M. D.

[Read to the Louisville
Medical Society, Sep-
tember 30, 1886.]

On November 7, 1884, I had the honor to read a paper before this Society on the subject of typhoid fever, with especial reference to the causes

leading to the endemic then prevailing in this city.

It will be remembered that after re-affirming my belief, announced eight years ago, in the existence of a micro-organism as the specific cause of the disease, and citing the very conclusive results of the researches of Professor's Eberth, of Zurich, and of Klebs, of Prague, in testimony of this theory, I used this language:

"In the light of this theory, so strongly supported by Professors Eberth and Klebs, I think a most rational explanation of the prevalence of typhoid fever in the western portion of this city is to be found in the polluted pump water, so generally used for drinking as well as culinary purposes.

"I have but to call the attention of this Society to the character of this water supply, to make conspicuous the source of contamination.

"Time was when the site of this city was probably a vast expanse of water or lake, which in process of time was filled by de-luvial deposits, or the river pursued a straight course, which was south of the greater por-tion of the city as it now stands, and, by

the usual causes, its channel changed to the present location. It matters not which theory is correct. It is a patent fact that, in curving around the city, a sheet of water is given off, passing under the city, pursuing the general course of the river from north-east to southwest. If I am correctly in-formed, it is found at a varying depth of from twenty-five to sixty feet; a bed of bowlders giving it free transit for the chief part of its way."

After describing the geological formations, which are familiar to all our people who have inspected excavations in various parts of the city, I continued: "Now it is a well known fact, that a privy vault is a very poor make-shift if it be not carried down twenty, thirty-five, even forty feet to the bowlder bed, in order that its contents may float off under the city, thus avoiding the rapid filling and frequent cleaning that would otherwise be necessitated. Upon an average, it may be safely said, that to every pump on the cor-ner, there are, within a radius of half a square, forty vaults reaching down to the bowlder bed to contaminate."

After describing the manner of surface pollutions, I recommended what is known as the "Drive Well," as reducing the danger of pollution to its minimum.

As incontestible evidence of the free com-munication between the vaults and the water-bed, I cited the fact well known to many of our citizens who have observed it, during the floods, that the contents of these vaults ebb and flow with the rise and fall of the river.

The idea that such beautiful, clear, cool, and sparkling water as that furnished by our pumps, could, in any wise, be responsible for the dissemination of typhoid fever, was repugnant to the senses of a large number of our most excellent physicians, and was therefore stoutly opposed.

However, Dr. J. N. McCormack, our industrious and capable Secretary of the State Board of Health, having been informed that I had under my care a number of cases of the disease, and that I believed the cause of its prevalence was to be found in polluted well water, requested, in the latter part of October of that year (1884), the privilege of meeting and visiting with me my cases, and inspecting the localities in which they were situated. To him, on that occasion, I expressed substantially the views afterward embodied in the paper above alluded to, which he did me the honor to listen to the reading of, before this Society, on the 7th of November following. He thought the matter of sufficient importance to justify him in making a very thorough investigation, including chemical and microscopical examinations by experts, of the water from a great number of pumps in the infected district. The conclusions evolved out of his pains-taking investigations, embodied in his report to the State Board of Health, at its meetings in this city, in March, 1885, corroborated my views in every essential particular.

In support of the theory that polluted pump water was chiefly responsible for the prevailing endemic, I stated the fact, that of sixty-eight cases I had seen, when the paper was written (this number grew to ninety-six from July 1st to January 1st), in the district west of Eighth Street, all the subjects, with one exception, were in the habit of drinking pump water, the one excepted doing so occasionally; and, that of my patrons in the same district who habitually used hydrant water but one case occurred. A medical friend, practicing in this same district, having seen almost or

quite as many cases, assured me that he had not seen a solitary case in a subject who habitually used hydrant water.

I obtained an estimate of the number of cases seen in this same district by ten other medical gentlemen which, with my own, aggregated about four hundred and fifty. Special attention not having been generally given to the water used, statistics on this point were necessarily crude, but so far as they went, were in accord with my own observations.

The history of the disease, in this city, for the last three years, has pointed so unmistakably to polluted pump water as its chief source, that it is as rare now to meet with a well informed physician who doubts, as it was two years since, one who believed it.

Out of this, must, sooner or later, come safety to the people, as they will come to understand that their immunity from this disease must be secured by abatement of the old wells, and they will demand it of the city authorities, and the substitution of either the "Drive Well," recommended in my paper, or, where practicable, the establishment of suitable public hydrants. Aside from the drive well reducing the danger from surface pollution to its minimum, it possesses the superior advantage in its capability of being driven from fifteen to thirty feet deeper than it is possible to dig and wall an ordinary well. Therefore, the water furnished by it is obtained as far as possible below the surface of the water bed, which receives from above, by slow seepage, the contents of the vaults; the surface of the water bed of necessity being most freely polluted.

While the disease under consideration has not been so prevalent during this year as that of 1884, it is sufficiently so to engage our serious attention as humanitarians.

By the annual report of the Health Officer, published a few days ago, it will be seen that during the year just closed, 117 deaths occurred in this city from typhoid

fever. Calculating on an average mortality of ten per cent, this would give nearly twelve hundred cases of a disease that ought to be prevented.

I have been induced to write this paper as supplementary to my paper of two years ago, by the constantly accumulating evidence of the correctness of the theory then advanced as to its causation, and by the feeling that each one of us should contribute his mite to the much desired end of discovering, and abating the source of so much disease, suffering, and death among our people.

I have seen quite a number of cases this summer and fall, and my observations have been as conclusive as two years ago. In but one case, a child nine years of age, was there any question as to the habitual use of pump water.

Pump water has been so conspicuous a factor in several of the cases I have seen this season, that I will be pardoned for mentioning a few of them. Of a family of several members, living on Main, between Nineteenth and Twentieth, in a house supplied with hydrant water, a young lady is now convalescent, after a severe attack. She, alone, of this family, preferring pump water, was in the habit of drinking that procured from the pump on the corner of Nineteenth and Main.

On Jefferson, between Eighteenth and Nineteenth, a family discontinued hydrant, and resorted to pump water from the corner of Eighteenth and Jefferson for drinking purposes. The wife, a young married lady, became the subject of a very grave attack of typhoid fever.

Of a family on Walnut, between Seventh and Eighth, formerly using hydrant water, who were compelled, on account of defects in the water pipes, to resort to water from the pump at the corner of Eighth and Walnut, for both culinary and drinking purposes, a lady had a dangerous attack of the disease.

A family formerly living on Broadway,

where they used hydrant water exclusively, moved to Fourth, between Jefferson and Market Streets, two months since, where, for some reason, they resorted to water from a pump on the corner of Third and Market Streets, for drinking purposes; a daughter aged twenty is now ill of typhoid fever.

On Main, between Campbell and Wenzel, I have lately been seeing, in consultation, a case of extreme gravity, in a family all of whom, with this one exception, habitually use hydrant water. The patient, a lady aged about thirty years, having acquired a taste for pump water, has been in the habit of using, for drinking purposes, that procured from the corner of Main and Wenzel. Other similar examples might be given, but these are sufficiently suggestive.

It is admitted that milk may be the medium of transmission of typhoid germs. Doubtless a prolific source of contaminated milk is the polluted pump water with which are washed the vessels used in receiving, storing, and distributing to families, milk often diluted with the same water or with water from some convenient pump in the route of delivery.

It may be argued that cases often occur in families who habitually use hydrant water. But it is such a common occurrence for some of the members of such families to stop, when thirsty, at a convenient pump, and drink, that I venture the prediction that if the investigation is made, an astonishing percentage of the subjects of the disease, in such families, will be found to have, at least, occasionally, slaked their thirst at public pumps.

Then bearing in mind the wonderful rapidity with which micro-organisms multiply, would it require any great strain upon our credulity, to believe a single glass of germ-laden water capable of producing, in a susceptible subject, a case of typhoid fever?

DISCUSSION.

Dr. Dudley S. Reynolds said, Dr. Clemens was entitled to great credit for his persistent efforts to direct professional attention

to the cause of the endemic prevalence of typhoid fever in Louisville. He investigated the subject for the State Board of Health, soon after Dr. Clemens first made known the suspicion that the water from the public wells in this city had been the means of spreading the fever in certain localities.

Dr. Reynolds had, several times, been able to demonstrate, in the water obtained from the pumps, supplying families suffering with this fever, the jointed bacilli, now recognized by pathologists as the specific germ of the disease.

On the 26th of March, 1886, Dr. Larabee invited Dr. Reynolds' attention to a well in the southeastern part of the city, which supplied a family, five members of which had died of typhoid. The water from this well, evaporated from cover glasses, yielded a residue rich in jointed bacilli, some of them arranged in chaplets, identical with those observed by Lewis in hogs having typhoid fever.

Dr. Reynolds is convinced, after a great many experiments, that Rindfleisch's method of staining with methyl violet affords a differential test of this bacillus. It stains the body of the bacillus red, and the nucleus a dark blue. Every spore-cell may be observed to contain the dark blue nucleus, while the bacilli have these in every joint. The nucleus stain in the bacilli shows a dark, oblong body; the nucleus in the spore-cells appears in many as a mere point.

In studying this bacillus, some care is necessary in determining the character of stain. Dr. Reynolds has seen an instrument, which, by its chromatic properties made the bacillus appear blue, while the nucleus seemed a maroon color. He has, no doubt this bacillus is the cause of the more violent hemorrhagic types of typhoid fever. He has examined the blood from the bowels of eight persons suffering with this fever, and has always been able to find, in great abundance, the jointed bacillus. None of the other analine dyes had been

found to yield the double stain obtained from the methyl violet.

Dr. Reynolds said the straight bacillus might be found in less rich cultures, which, when propagated in sterilized gelatine, developed in eight hours, the chaplet form. To this he attributes the discrepancy of opinion concerning the bacillus of typhoid fever. He thinks it important for the student to remember the colored plates in Friedlander's book are schematic, and not micro-photographs, as many seem to think.

TREATMENT OF DIPHTHERIA.

BY

WM. PORTER, M. D.,
OF ST. LOUIS.

[Read in Section at the meeting of the American Medical Association, 1886.]

From *St. Louis Weekly Review*.

Diphtheria is a common disease, it is one of the most fatal. As one illustration of many, in five years there were 17,193 cases in New York alone, and 7,263 deaths. It is a disease that every physician

will be called to treat sooner or later, and being called must act promptly. This is not the place for a long essay upon the different theories of diphtheritic contagion and progress; rather let us enter at once upon the discussion of the practical questions involved in conducting the disease to a favorable issue.

Let me very briefly sketch the manner of invasion according to conclusions which seem most reasonable and are by many accepted:

1. Diphtheria is a contagious or rather portagious disease.
2. It is most readily implanted upon a mucous membrane denuded of its epithelium.
3. It is probably always local in its incipency, sometimes becoming rapidly systemic, though in rare cases apparently becoming systemic from the beginning.

To further explain rather than to argue these propositions, let me say that the best protection against diphtheria is a mucous membrane entirely healthy, and an ordinary

acute or subacute laryngitis or pharyngitis is a condition favorable to the implanting of the diphtheritic germ. When the epithelial layer is intact, the diphtheretic germ finds no foot hold, but when there is an abrasion or denudation of the lining membrane, the diphtheritic poison is first found on the surface so prepared for it. This is the local period of the disease, and no characteristic micrococci are found in the blood; there is no constitutional symptom. Sometimes though there may be rapid surface involvement, and free formation of the essential membrane, there may still be little absorption of the diphtheritic virus.

Many of these almost purely local conditions suggest a doubt as to their specific nature. It is well to give the patient the benefit of the doubt, and to treat urgently all suspicious looking exudations upon the surface of the respiratory tract.

Practically a certain number of cases of diphtheria are constitutional from the beginning, the point of infection being in some recess of the naso-pharynx or larynx and easily overlooked, or is beyond the range of vision. I am not sure but that infection may occur from primary invasion of the membrane of the alimentary canal. Klebs, in the Second Congress of the German Physicians, speaks of a diphtheritic involvement of Peyer's patches resembling the reticular appearance in the early stage of typhoid.

In by far the greater number of cases the rapid multiplication of the bacteria—whether sphero-bacteria, as are found in severe cases, or whether short and slender rods as in milder cases—produces an inflammation of the mucous membrane, exudation takes place, the epithelial cells die and the bacteria pass into the blood and rapidly multiply throughout the circulation.

Even should we deny with Beale, that the contagium is bacteria, we still must admit that the hypothesis of local infection furnishes the most rational explanation of the sequence of symptoms. Granting this we

have two purposes in treatment in the early stages of diphtheria.

1. To destroy or render harmless the local manifestation of the disease.

2. To increase power of resistance, in the general system, to infection.

In dealing with the false membrane all measures which would tend to irritate or injure the air passages, should be avoided. There should be no tearing away of the exudation, or application of caustics, nor do I think that, except in cases where there is only a small, well defined patch of membrane, the use of the galvano-cautery will prove expedient.

To prevent absorption, not only should we avoid making new abrasions in the throat, but I have thought it wise as far as possible to cover up those that already exist.

First of all it is well to remove from the naso-pharynx, or pharynx, if that be the site of invasion, whatever of accumulated mucus and debris there may be. This may be readily done by means of a small syringe, and a weak solution of salt water, or of listerine, which may be used either through the nostril or directly in the pharynx.

To loosen the attachment and hasten the resolution of the diphtheritic membrane, many means have been advocated.

When the patch can be reached, a solution of papayotin may be applied, or better still one of trypsin. This last used in solution as suggested by Fairchild and Foster, or still better a few grains with one or two of bicarbonate of soda made into a paste with water and spread upon the diphtheritic patch is the most rapid solvent I have known. If the local disease is beyond the reach of such an application, an alkaline solution of trypsin may be sprayed into the nose and larynx.

After several applications of trypsin within the hour, a still further attack may be made upon the local disease. Having used more or less freely most of the germicides, astringents and antiseptics commended in the treatment of diphtheria, I have abandon-

ed all else for a solution of equal parts of the tr. ferri hydro-chlor. and glycerine. I have cause to consider this, when well applied over the entire extent of the diseased surface, an almost complete bar to the progress and absorption of the diphtheritic virus.

1. If the potency of the disease lies in the rapid multiplication of bacteria, so strong a chlorine solution is certainly indicated.

2. If absorption takes place through the abraded surfaces and "mouths of lymphatics open," as stated by Oertel, we would from *a priori* reasoning expect some good from the local use of iron, while the glycerine may be something more than a mere vehicle, in that it may by affinity, relieve to some extent the turgid capillaries of the mucous membrane. The application should be made frequently.

Let me say in urging the efficacy of this agent, that for two years I have not seen a case of diphtheria die where the whole of the false membrane could be seen and was repeatedly covered with this solution, and when appropriate general treatment was given. Thrice within the past week and many times during the past year, I have seen the characteristic membrane shrivel up and become detached under the influence of the iron and glycerine, but it must be thoroughly applied.

Where the local attack is out of reach of the direct application by means of the brush, or better still the cotton covered probe, the case is very different. When the invasion is in the naso-pharynx or in the larynx the result may well be dreaded. Even in such instances I believe the best procedure is to apply the iron locally by spray, and where possible by the cotton covered probe.

The covering of the diphtheritic patch with tolu varnish, as recommended by MacKenzie, may follow the thorough use of the iron solution, and is doubtless protective.

Not only is local treatment important, but

it is important to institute it early. The physician should be called at once in every case where there is a doubt. Parents should feel that they are responsible for delay, and that delay is exceedingly dangerous. Many cases that during the first twenty-four hours are easy to treat and curable, are a little later beyond the reach of the most skillful.

I could not be induced to delay the effort to put out a fire which threatened my home, and I could not consent to a moment's hesitation in urgently combating the earliest appearance of diphtheria in that home.

A few words as to general treatment. Here, too, I have no sympathy with half-way measures. First of all, in almost every case I counsel the administration of enough of calomel and soda combined to freely evacuate the alimentary tract. It empties the canal of any accumulated material, it stimulates important secretion, and with Ritter, though not to the extent to which he advocates it, I believe it has a favorable influence upon the general condition. At least it clears the decks for action.

As soon as the bowels of the child have been well moved, and sometimes not waiting for that, the internal use of the iron and glycerine solution (the same as that used in the throat) may be begun, for we need not fear any chemical reaction. That others are falling back on this well known agent, let me quote from an editorial in one of the last numbers of the *New England Medical Monthly*. "It is interesting and somewhat gratifying to note that after each excursion into the domain of experimental medicine, the profession invariably returns to the older and more effective method of treating diphtheria, which consists of toxic doses of the tincture of iron and a system of extreme nourishment."

To anticipate and antagonize general invasion, the general as well as the local treatment should be instituted early.

When the symptoms demand I prescribe two drops of the iron and glycerine solution for each year of the child's age, in a little

water every two hours, and midway between each dose the diphtheritic patch is to be touched or sprayed with the solution. Thus there is an opportunity for the ferric solution to be brought in contact every hour with so much of the diseased membrane as is in the pharynx.

I have not discussed much of the polytreatment of diphtheria as practiced to-day, nor have I time to outline the emergencies which may arise, as I had thought of doing. My object has been to propose a plain, direct method of treatment which any one may use, and which is not an experiment.

Many other remedies are often to be added; pilocarpine, when the skin is dry and there is spasmodic laryngeal contraction; quinine, when the fever is excessive; steam from slaking lime, when respiration is labored and the respiratory tract dry, and tracheotomy or intubation when the larynx is greatly obstructed.

Let me in conclusion urge the physician to demand of the people among whom he labors, that they call him at once when suspicious symptoms are observed, and that he answer quickly, act promptly, and see that his instructions are implicitly obeyed.

To treat diphtheria is to fight a battle, there should be no delays, surprises, nor compromises.

AN UNRECORDED
DANGER FROM
CONTINUED
LARGE DOSES
OF IRON.

BY J. STRAHAN, M. D.
BELFAST.

[Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association at Brighton.]

Intestinal concretions of various kinds have been described; concretions of magnesia, of cocoa-fiber, of oatmeal, and hosts of other substances bound together by mucus, which probably exists in too large quantity when such concretions form; that

tinal concretions of magnesia and oxide of iron, which the patient had been in the habit of taking; but he says that such rarely occasion sudden occlusion of the bowel, that the symptoms are distinctly chronic. This is the only mention I can find of iron as an obstructive agent, and what I have to record differs altogether from the cases described by Mr. Treves.

Dr. J. C. Thorowgood (*Medical Times and Gazette*, June 30, 1883, page 725) shows how bismuth can cause obstruction, but he merely gives us *post mortem* appearances, and not the symptoms during life. He says that subnitrate of bismuth has been given in such quantity that, after death, large, hard, black masses of concrete sulphide of bismuth have been found blocking the intestine, and resembling lumps of metal.

There can be no doubt about the usefulness of large doses of iron in many different states and disorders. Mr. de Morgan, at the Middlesex Hospital, gave at least one or one and a half drachms of tincture of iron daily, sometimes as much as one and a half to two ounces, for erysipelas. He speaks highly of it in these doses, saying it reduces the duration from two to four days, instead of from seven to ten (*Holmes's System of Surgery*, vol. i, page 265 *et seq.*). Dr. Squire gives as much as half an ounce of the tincture daily in diphtheria to young children, and much more to adults.

It often happens that anæmic people are also dyspeptic; have a pale, teeth-indented tongue, nausea vomiting, and even pain after food. The dyspepsia is dependent on the anæmia, and it is wonderful how such stomachs bear large doses of chloride and sulphate. It is the best and quickest way of cure for both dyspepsia and anæmia, but I think it requires a precaution which I shall explain presently. Large doses of iron act as an immediate stimulant, rapidly remove anæmia, remove gastro-intestinal catarrh, renew appetite and digestion; but, unfortunately, if continued more than a week or two, they cause a gastro-intestinal catarrh

is to say, a state of intestinal catarrh assists the formation very much. Mr. Treves, in his *Intestinal Obstruction*, page 336, gives many curious cases of obstruction by intes-

of their own, and, if this be not attended with diarrhœa, or if a purgative be not given, serious symptoms may ensue.

The preparations I have found to cause symptoms of obstruction are as follows, namely: Ringer's pill of 5 grains of dried sulphate of iron = 9 grains of ordinary sulphate; half drachm and whole drachm doses of tincture; *mistura ferri composita*, *P. B.*, made so strong as to contain 8 or 10 grain of sulphate of iron and carbonate of potash in each dose. Any of these, if given three times, or even twice, daily, for from one to two weeks, and if natural or artificial diarrhœa do not in the meantime wash out the quantities of insoluble sulphide, will cause severe colic and constipation, which morphine and turpentine stupes seem unable even to alleviate, and which, it seems to me, would continue indefinitely, or till death if not removed by a smart saline purge, or other means. I have seen twenty-four hours of rhythmic agonizing pain, very like labor, with nearly constant vomiting, no sleep or ease, after a grain of morphine by the mouth, the temperature rising to 101° Fahr., and great depression of all the powers of life, from a couple of weeks' course of Ringer's pill, which had done immense good to the system at large. This has not occurred once only, but dozens of times, so that I now expect it, and provide against it. As soon as ever a large dose of any saline—I prefer an ounce of sulphate of magnesia—has well acted, all symptoms rapidly disappear. At this time, and for twenty-four hours, the stools seemed composed half of dirty water and half of black sand. I think this latter fact explains the pathology of the matter. In fact, it is a real obstruction—an acute one too—by quantities of insoluble sulphide of iron.

The quantity of this black sand, which comes away when severe constipation and colic have occurred, is surprising. It seems to be much more in quantity than the whole iron ingested, although the stools have been jet black all along, through excreting the

sulphide. So, it seems to me, it must lodge somewhere; perhaps in the cæcum and appendix. Then when the iron begins to sicken the patient (gastric catarrh), the sulphide, I suppose, concretes by mucus, and forms an obstruction which brings matters to a crisis. The length of time that a patient can take large doses of iron, depends on the state of the bowels: if they be kept, or remain, slightly loose, he does not suffer at all; if he becomes constipated, the iron soon sickens, and the horrible pains begin; if he were to take a smart saline purge once a week, I believe he could go on indefinitely. The saline gives the quickest relief, because it produces such a vast exosmosis of water from the intestinal wall at all points, as to dissolve the mucus which binds the sand, and then washes it out. In extreme constipation, it dissolves fæcal lumps in the same way, except when the masses are enormous. It is thus the best purgative where there is a stricture in the bowels, with dilatation above, as it melts the fæces into a fluid, when they can run through the narrow part.

It is also well known to be the only safe purgative if any inflammatory lesion exist, enteritis or peritonitis. Mr. Lawson Tait takes advantage of this property of salines in his modern treatment of peritonitis ensuing on abdominal section. The principle here seems to be that of giving true and perfect physiological rest by dissolving and washing out all irritants.

Another great advantage the salines have, is that they cause no pain, no griping. A teaspoon of Epsom salts every two or three hours will put an end to many a case of fæcal obstruction in old people, and that without pain, where croton oil, and drachm doses of jalep have only given rise to unendurable pain and collapse.

I daresay copious enemata would succeed even in a shorter time than the saline takes to act (about two hours); but as the latter acts so well I have not tried the former.

I can not, of course, say that large doses

of iron will affect every one in the way I have described, but in the nature of things I believe it to be highly probable. I think this obstruction by iron worth calling attention to, as many medical men are as fond of giving large doses of iron as I am. There is excellent reason for the practice too. Laache, in "The Relation of Recent Researches on Blood-corpuscles to Anæmia and Leukæmia" (*Deutsche Med. Woch.*, October 23, 1884) shows that in anæmia it may be both corpuscles and hæmoglobin in proportionate quantity which are deficient, or, as in true chlorosis, while the red cells are diminished, the hæmoglobin is reduced out of all proportion to the loss of red cells. In fact, in the latter condition, what red cells remain are individually "chlorotic," are not red, or at least, not red enough.

Again, after bleeding, the red cells increase much more rapidly than the hæmoglobin, until, assuming it to be evenly distributed among the corpuscles, it has sunk to 70 per cent of the healthy standard. Now, in such cases, the value of large doses of iron is seen. According to Laache, small doses of iron chiefly stimulate the numerical increase of red cells; large doses restore both the number of cells and the amount of hæmoglobin in each. This explains the difference which most men have noticed in practice between the large and the small dose.

ALBUMINURIA

IN DIABETES.

BY ROBERT MAGUIRE,
M. D., M. R. C. P.,

LONDON,

*Physician to Out-Patients,
and Joint Lecturer on Pathology,
St. Mary's Hospital.*

[Read in the Section of Pathology at the Annual Meeting of the British Medical Association at Brighton.]

Albuminuria is a complication of diabetes which is frequently overlooked, and which may be of grave or of insignificant import, according to the various conditions under which it may arise. It may occur as a chronic or as an acute albuminuria.

In the chronic form, the albuminuria is associated with an organic change in the kidneys and urinary tract, or it may be due to derangement of the circulatory apparatus of the kidney.

In post-mortem examinations made in long-standing cases of diabetes, it is common to find the kidneys hard and tough; and, when examined microscopically, they show an overgrowth of the interstitial tissue round the vessels and glomeruli and between the tubules. The capsule of the kidney may be slightly adherent; but it is rare to find a condition which could be called granular kidney. Doubtless, this interstitial overgrowth has for its cause the irritation of the kidney by continuous overwork. It is a condition which, as might be expected, is occasionally associated with the presence of albumen in the urine, but in only small amount. Such albuminuria has usually little or no influence upon the course of the diabetes; this goes its way as if no such complication had arisen. It must be remembered that one is now speaking of diabetes complicated by interstitial overgrowth in the kidney, and not of those cases of gouty interstitial nephritis, which may present at times an insignificant glycosuria, in addition to the persistent albuminuria. The albuminuria has in these two conditions an essentially different prognosis. Occasionally, however, as Dr. Pavy has pointed out, albuminuria may, to a certain extent, displace a glycosuria, and become the prominent symptom of the case.

GLUCOSE.

It seems strange that the medical pro-

fession, in general, have not recognized the fact that all forms of glucose used as food, must be injurious to the health of individuals who take it. It represents, in fact, an artificially digested form of food already deprived of its power of imparting force by the molecular change, which the digestive ferments produce in starch and saccharose. The glucose produced in the normal process of digestion, has for its chief office, the production of force in exciting the movements of the white blood cells.

Fatty degeneration of the kidney may, again, occur in diabetes, and give rise to an albuminuria, which exerts little influence on the progress of the case.

There is another organic change which I have sometimes seen in post-mortem examinations on diabetics, and which may conceivably give rise to albuminuria, although I offer this as a suggestion, and without proof of any kind. I allude to a thickening of the walls of the bladder, and with this—in all probability, in consequence of this—a dilatation of the ureters and of the pelvis of each kidney; in fact, a mild condition of hydronephrosis. We know from experimental evidence that ligature of the ureters will cause albuminuria, and it is possible that continuous high pressure in the pelvis of the kidney, produced in the way I have mentioned, might determine an albuminuria in diabetes.

Such are the organic kidney-changes under which diabetic albuminuria may occur; and it is somewhat remarkable that these, which under other conditions would be considered grave lesions, are here commonly of so little consequence. This becomes almost a paradox, when we find that one little form of functional albuminuria which may occur in diabetes is a very bad omen. In the later stages of diabetes, as asthenia progresses, the heart begins to fail, and one of the early signs of this is a slight albuminuria, due to the deficient circulation of blood through the kidneys. At the same time we find, of course, general asthenia, and not unfrequently nervous symptoms, such as great depression of spirits with hysterical phenomena, mental torpor, and drowsiness. This, however, is not true diabetic coma, and must not be confused with it. The albuminuria is in itself of little consequence, but the general condition producing it is very serious. The cardiac asthenia may in some cases be recovered from, under the influence of cardiac tonics, but in the majority of cases it is a near precursor of the final break-up.

I wish to call the special attention of the meeting to an acute form of albuminuria, which occurs in connection with diabetic coma, and which is of very serious prognosis. In pursuance of a complete examination of the urine of a patient suffering from diabetic coma of the dyspnœic type, I found a considerable quantity of albumen, which had certainly not been present before the coma set in. The patient died, and at the post-mortem examination there was seen, in well marked form, the “necrosis” of the epithelium lining the convoluted tubes and Henle’s loops, described by Ebstein. Another patient, under the care of Dr. Morgan in the Manchester Royal Infirmary, showed albuminuria about twenty-four hours before noticeable signs of diabetic coma appeared. I mentioned this in a note to a review in the *Medical Chronicle* for December, 1884, and since then I have never failed to find albumen in the urine of those patients suffering from diabetic coma of the true “Kussmaul’s” type, with whom I have met. I have not a large number of cases to record, about eight or nine in all, but I find that Stokvis, of Amsterdam, at the Wiesbaden Congress of this year, has stated as his experience also that albuminuria is of very frequent occurrence in diabetic coma.

A case which came under my notice recently may be mentioned, in that it not only illustrated this point, but was also of medico-legal importance. A gentleman’s coachman, who had previously been in apparently good health, although it was afterwards elicited that he had been losing flesh for about a year, complained one day of a slight pain and uneasiness in the abdomen. For this, a druggist gave him a bottle of medicine, of which he took one dose, and died comatose four hours afterward. The medical gentleman who was called in invited me to make the post-mortem examination. On opening the skull, a strong sweet smell of aceto-acetic acid was perceived, which became almost overpowering when the thoracic and abdominal cavities were opened.

The liver was enlarged and congested, the kidneys large, in color mottled yellow and red, and on section the cortex was found to be greatly increased in extent. A quantity of urine drawn off from the bladder gave the ferric chloride reaction of aceto-acetic acid, contained a large quantity of sugar, and in addition a considerable amount of albumen. A small amount of albumen is frequently found in the urine drawn from the bladder after death, but such could not be the origin of the large amount found in the above case. On microscopic examination of the kidneys, I found the glomeruli intact, but the epithelium of the convoluted tubes was greatly swollen, in some parts hyaline, in others appearing as a confused granular mass, which was very difficult to stain, and which showed very few nuclei. In many parts, too, the epithelium was detached from the walls of the tube. This condition of the kidneys was, therefore, the probable cause of the albuminuria. The pathological signs showed that the case was one of diabetic coma, and it was afterwards proved that the medicine the man had taken contained nothing harmful.

Recently, in a case of diabetic coma, I analyzed the albumen which was present in the urine, and found that it consisted of two and one half parts of serum-albumen to one part of serum-globulin, a proportion which I have observed to be a common one in severe organic lesions of the kidneys.

The relation of this albuminuria and its accompanying kidney-change, to the diabetic coma, is of great importance, but uncertain. The coma is certainly not uremic coma, but all the later researches prove that it is due to the circulation of some poisonous matter in the blood, whether this be acetone, aceto-acetic ether, aceto-acetic acid, or oxybutyric acid. Two possibilities seem open: one is that the poisonous matter in the blood irritates the kidneys, and so produces the change in the epithelial cells, which change is quite analogous, as far as the convoluted tubes are concerned, to that

produced by a large dose of cantharides. In support of this, it should be noted that, in the experiments in which attempts have been made to produce diabetic coma by injecting into the blood the various substances mentioned above, albumen has occasionally appeared in the urine. The other possibility is that something more than the presence of the poisonous matter in the blood is necessary to produce coma. It may be that this further determining influence is the epithelial change in the kidney, the sign of which is the albuminuria described. It will be remembered in this connection that, in the researches hitherto published, the complete symptomatology of diabetic coma as seen in man has not been produced in animals, by the injection of any poisonous matter into the blood, so long as the kidneys have been intact.

These, however, are mere speculations, requiring actual proof by experiment, and it would be out of place to pursue them further here, especially as Dr. Dreschfeld will, I believe, enlighten us on the subject in his forthcoming Bradshawe lecture.

A CHANGE

IN PHARMACY.

The general practitioner should no longer be dependent upon that often very conceited individual known as the drug clerk, for the compounding of important prescriptions.

The manufacturing pharmacist who extracts the alkaloid from the crude drug divides it, fortunately, into quantities suitable for an ordinary dose; therefore the practitioner is able, at much smaller expense than formerly, to equip himself with a small case of medicines in concentrated form, representing the active principles of the medicine he wishes to use. To make a combination, he has, therefore, simply to direct so many different granules or tablets to be taken at a dose, and he may be reasonably certain his patient obtains precisely what he designed him to have, and that in the purest form.

GENERAL SURGERY.

REFLEX
IRRITATION
IN GENITO-
URINARY
DISEASES.

BY

HENRY ORENDORF,

M. D.

LOUISVILLE.

Professor of Materia Medica, Therapeutics, and Clinical Lecturer on Genito-Urinary and Skin Diseases, in the Kentucky School of Medicine.

I wish to point out that urethritis is a serious lesion, especially in its results. That unfortunately it is looked upon by the laity and by many of the profession as a simple trouble that does not amount to the dignity of much attention. Now it is submitted that it should receive that attention in the acute stage which would pre-

vent the necessity of greater attention in the chronic stage. That a given case of so-called recurring clap, profuse in discharge for a short time, thinning into gleet, thence to a glued meatus is to be looked upon with suspicion. That to speak lightly of, to prescribe off-hand some ordinary injection, without examination or inspection, and often without advice, is little less than criminal. That such a course causes patients to believe there is but little the matter, that it amounts to nothing, no sequela, and after the discharge has almost ceased the urethra is about as well as before any discharge appeared. This is radically wrong. These cases of repeated clap are *stricture builders*. These cases of recurring discharges should be carefully examined with the proper kind of instruments to know what the trouble is before any sort of treatment is begun, then intelligent means can be adopted and the patient relieved. That the majority of strictures comes from neglect of the first clap. That masturbation is also a prominent factor in the causation of urethral stricture, of enlargement of the prostate gland, of a sensitive genito-urinary tract, of prostatorrhœa, of spermatorrhœa, and of spermorrhagia. That these reflex transmissions to centers is a serious matter, pro-

ducing functional and organic changes which are deplorable. That if removal of irritation is early enough, patient is restored—removal at any time the disease is palliated. This is shown in three ataxic cases operated upon by division of strictures. Of course there is no complete recovery here of the ataxy, but there is sufficient and permanent improvement, because of the division, to attend to business fairly, which was not attempted before. My opinion is, that the majority of ataxics have stricture of the urethra. It is worthy of the attention of the profession to make an examination of this point.

CASE I.—Mr. G. G., Louisville, 24 years of age, came May 6, 1885, with a chronic urethral discharge, which had existed at that time for a number of months. Inquiry developed that he had contracted urethritis five years before; that the discharge had continued thereafter from six to nine months; that under treatment it gradually subsided, only to reappear on exposure to alcohols or women; that he was continually getting a fresh case; that the meatus was glued together every morning; that this repetition had now continued until it was not only annoying and disgusting, but that it was wearing his general health much below par; that in coition found he could not do normal duty on account of incomplete and shortened erections, showing that while desire was natural he was incompetent from a lame penis; that in micturition there was more than ordinary labor to empty the bladder, the aggregated nervo-muscular force to perfectly perform this act was interfered with from loss of tone; that there was dribbling, twisting and splitting of stream and much dissatisfaction with the act.

Examination with olive bougie 27, French scale, disclosed a meatic* and penal stricture, the latter four inches from the

*By meatic stricture is meant the point within the urethra where the bulbous sound arises anteriorly out of the fossa navicularis.

first. This penis in flaccid state measured three and a half inches in circumference, which entitled it to a caliber of 32 to 34 F. After cocainising the urethra the urethrotome was introduced, dividing both strictures up to 33 F., and with a pledget of cotton to prevent meatic coaptation, the operation was complete. The conical sound $5\frac{1}{2}$ inches in length and 32 F., was inserted daily, then every other day, and then at longer intervals for a fortnight, when patient was discharged.

July 19th following, made examination with 32 F., found urethra at former site of stricture smooth and free from obstruction.

The third week in the following October he was married, and to testify to the full recovery of the penal organ, in due time he became a father.

COMMENTS.—It is evident that this was a case of stricture from plastic deposit made at the first urethritis. That the renewal of subsequent discharges from time to time, according to exposure, was due to repeated irritation and congestion of the plastic spots, and at the same time increased the amount of plastic material composing the stricture. That the organ was lamed, both in a direct and reflex manner, to the extent of the presence of the residuary and increasing plastic matter. That this is the kind of case in which a man gives himself a clap again and again, but does not know it and damns the woman, who has given no venereal offense whatever.

CASE II.—F. B., Cincinnati, 26 years of age, came April 5, 1885, to be relieved of urethral discharge, which had troubled him off and on for some two years; that the ordinary treatment used relieved for a time, but upon exposure to beer or women the discharge would reappear as if he had contracted a fresh clap.

Examination with bougie revealed two strictures—one meatic, the other about three inches from meatus. The strictures disclosed a caliber of 27 F. at meatus, and 26 F. at penal, and as the penis in the

flaccid state measured three and a quarter inches, it was entitled to a caliber of 30 to 32 F.

After cocaine the strictures were thoroughly divided up to 32 F.

The usual after treatment enjoined and rigidly carried out, as pledget cotton in first division, hot water baths, alkaline urine, use of conical sound and bougie.

Patient was discharged May 9th following, and being in Louisville September 5th following, examination revealed a perfect urethra, and he assured me that the member was able to do full normal duty both as a urinary and genital organ.

CASE III.—L. L., Louisville, 20 years of age, came to consult about milky urination, with dribbling, twisting and scalding stream, and tenderness of urinary tract. About mental depression, fugitive pains in penis, testicles and bladder, radiating thence to left hypochondrium, spine, and base of brain.

About irregular and tumultuous heart-beat, sighing respiration with alternate flushing and paling of face, and much agitation; about indigestion, fullness of stomach, chronic constipation, with flow of milky substance from penis during defecation; about loss of memory, general weakness, and inability to attend to daily store duties. Had been prescribed for in an off-hand manner, but not examined in any way, and introduction of bougies disclosed a meatic, 21 F., and two penal strictures, each 18 F. The penis measured three inches, which gave a urethral caliber of 29 to 30 F., and further examination with curved sound, with pressure upon perinæum, and with finger in rectum, disclosed a tender and enlarged prostate. After cocaine injection the strictures were divided up to 29 F., and with the usual treatment after division, and adjunct treatment for indigestion and constipation the recovery was slow but good. Resumed work last of April, following.

COMMENTS.—Here was cause sufficient and in abundance to produce these direct and reflex nervo-muscular disturbances upon

the entire economy. The patient never had a clap, but all symptoms were due to the effects of masturbation, which resulted in an enlarged prostate and urethral stricture. The prostaticorrhoëa irritated the strictures, which increased the plastic deposit. The act of urination was incomplete because the channel was not clear, resulting in retained and decomposed urine, again, through irritation, adding to the plastic deposit. It shows that masturbation continued for a number of years causes as much or more damage than repeated claps; it shows in a most typical manner the full reflex disturbances due to continuous irritation and congestion; it shows that when the irritation is removed these disturbances cease and the patient soon resumes the normal condition.

CASE IV.—M. H., Louisville, 23 years of age, on April 20th, consulted me about chronic prostaticorrhoëa, which had been present with him for a number of years. Inquiry developed that he had been a persistent masturbator until he was old enough to do commercial tourist work, when he began to turn his attention to the female sex. Pretty soon he contracted a clap, which was treated for some time, and finally got well. Soon after he contracted another case, which gradually dwindled into a gleety discharge small in amount, with a glued meatus every morning. The prostaticorrhoëa now manifested itself on urination and defecation in a still greater degree on account of increased irritation of urethral tract and greater constipation.

He had all the direct and reflex disturbances enumerated in former case. He was especially depressed mentally, and much below par physically, and very skeptical in regard to medical measures, as he had in this way been over medicated and refused in advance to take much medicine. No examination with instruments had been done, and what he had gotten for relief was in the usual routine way.

Inspection disclosed a phimotic irritation and that he was a monorchid. Introduction

of bougie revealed a meatic, 26 F., and a penial stricture 24 F., four inches from meatus. Curved sound, perineal pressure and finger in rectum revealed an enlarged and sensitive prostate. Again, here was enough and much to spare of irritation, congestion and inflammation, with resultant plastic deposit to cause and to account for the direct and reflex conditions present.

First, circumcision was done under cocaine. After this irritation was removed, the strictures were divided up to 32 F., about the caliber of his urethra. With the usual after division and prostatic treatment, patient gradually regained his health, and was discharged June 14th, following.

CASE V.—F. W. E., Hart County, age 30 years, bachelor, came May 10, 1885. Inquiry developed that he had been under treatment of different physicians for five years or more; that the diagnosis was about the same all round, viz.: exhaustion from irritation of the par vagi; that there was much interference with the normal function of two most vital processes, respiration and circulation, manifested by frequent attacks of irregular and tumultuous heart action, inability to respire to such a degree as to fear immediate dissolution, which was agonizing; that between these attacks which were frequent, there was continuous sighing respiration, alternate paling and flushing of face, indigestion, constipation, sensitive perinæum, prostaticorrhoëa, weakness of genito-urinary organs, and much general failure, with great mental despondency; that the alcohols gave more relief in the spasmodic condition than any remedy tried; that he had been a masturbator for fifteen years, never had a clap, and but little coition.

With the curved sound was found a sensitive urethral tract, an enlarged and tender prostate. With the bougie it was found a meatic, and penial strictures to the number of five, ranging from one to two inches apart, the posterior one five inches from meatus. The size of strictures ranged

from 18 F. to 26 F., while the penis was entitled to an urethral caliber of 35 to 36 F. Complete division was made in three sittings under cocaine and the usual treatment given for this and necessary adjunctive treatment for symptoms as needed. Gradual improvement was made, and patient discharged August 17th, following. Re-examined May 25, 1886, found all well.

CASE VI.—M. W., Washington County, 34 years of age, bachelor, stopped here April 17, 1885, in charge of relatives, on way to asylum, when his brother had me to see him at his hotel. History disclosed that he had not been well for five years, and recently had grown gradually worse; that the spine was acutely painful and ached as a “splitting” headache, and got no rest or sleep except from the exhaustion due to continuous tramping about the farms, when he would throw himself on a bed in his clothing, wet or dry, and sleep until awakened by the spinal pain; that he had both frontal head and basic pain, though not so great as the spinal pain, pupils dilated, brow corrugated, thought and speech somewhat disjointed, wild looking expression, constant desire to move about, anorexia, indigestion, constipation, uneasiness and sometimes pain in genitals radiating towards left hypochondrium and spine; that he had been a masturbator pretty regularly for some fifteen years, and had done no coition at all; that he had an elongated and irritable prepuce, and enlarged and sensitive prostate, with prostatorrhœa, spermatorrhœa, and sometimes spermorrhagia, and a meatic stricture 21 F. He was sent to an infirmary, and had local and internal agents to secure some rest and recuperation. May 4th was in condition for division of stricture, which was done up to 27 F. Patient commenced to do well at once, and so continued, with exception of crop of boils. June 11th, to make sure the removal of all reflex irritation, he got circumcision, and June 17th, was discharged and sent home.

COMMENTS.—Now here was a case clearly

going on to full mental aberration and idiocy. Yet with the removal of peripheral irritation the centers were relieved, organic changes prevented, a young man saved to himself, his family and friends, and from the disgrace and unfortunate embrace of an asylum. How many could thus be saved by timely interference can be answered only by an intelligent profession. How many are now languishing in asylums in a hopeless condition of epilepsy and idiocy from this reflex irritation, may be imagined, but not known until the proper examination with proper instruments is done and reported. In the name of the profession, for the sake of humanity, this should be done, and done by experts if possible, and when such irritations are found, no matter how far functional or even organic changes have gone, give to them by operation and removal, the benefit at least of a doubtful result, which had not obtained had operative interference been done at the proper time. Think of it, how many young men can be saved, not only from this extremity, but saved to usefulness in life, to manhood, to self-respect, to abhor the pernicious habit and practices that bring about these results, and finally to entertain the idea and accept the practical results of matrimony, and become a citizen indeed to State and society.

If I have succeeded only in part in drawing the attention of the profession to the frequency of these genital irritants, doing such reflex disturbances, and have awakened within them some thought and action, I shall not regret having written these lines.

TRIGGER FINGER.

BY FRANK R. FRY, A.
M., M. D.,

*Attending Physician St.
Louis Medical College
Dispensary Department
of Nervous Diseases.*

The following case is reported to call attention to an interesting little pathological phenomenon that has, do doubt, been frequently overlooked because not generally understood and recognized. Before giving the brief notes of my case, it will be better to make the reader acquainted with the na-

ture of the phenomenon, and to do this I can do no better than quote portions of a very complete paper on the subject, read before the New York Neurological Society, June 1, 1886, by Dr. Geo. W. Jacoby.

“Doigt à resort (schuellender finger, fed-ernder finger, of the Germans) is the name given by Nélaton to a peculiar inhibition of motion occurring in fingers which are otherwise normal. This inhibition consists of an inability to voluntarily flex or extend the affected finger in the normal manner. If the finger is primarily extended and an attempt at flexion is then made, the attempt is successful up to a certain point; that is, the two segments of bone become arrested in their movement upon each other as soon as they arrive at this point. At this moment a sudden arrest of motion takes place. If, then, a considerable effort is used, or any mechanical aid employed, as, for instance, the other hand, the arrest is overcome, and the finger is flexed with a velocity comparable to the closing of the blade of a pocket-knife. This closure is generally accompanied by a cracking sound which can be heard at some distance from the patient. In endeavoring to extend the flexed finger the same phenomenon occurs again, but in a reversed order. Sometimes flexion is produced normally, and it is only extension which is affected, but I know of no case in which flexion was thus interfered with and extension was normal. As a rule, muscular effort alone is sufficient to overcome the obstacle, but occasionally the other hand must be used, or as in the case of Blum's, the patient must sit upon his finger in order to close it. Rarely are the movements entirely painless; generally the entire motion is painful, and particularly at the time when the snap takes place the pain is so intense as to make the patient cry out aloud.

As regards the seat of the affection, the patient will always describe the inter-phalangeal joint as the one affected, but a careful examination will show that such is not the case, but that the real seat is at the meta-

carpo-phalangeal articulation. Externally the finger presents nothing abnormal, but pressure over the last mentioned point almost always produces pain. The painful point is generally confined to a small space upon the volar surface of the flexor tendon.

“All authors except Busch agree upon the existence of a nodosity in the course of the flexors at some distance from the articulation in which the spring takes place. This nodosity is, by either flexion or extension, pressed against a natural transverse fibrous band, and as a result we have the arrest of movement. By an increase in the force the obstacle is then suddenly overcome, and thereupon ensues the spring.”

CASE —. Miss —, eighteen years of age. The right ring-finger is in a condition of constant flexion at the upper inter-phalangeal joint. The flexion can only be overcome by mechanical aid, and when extension is thus accomplished, it is accompanied with a snap that can be felt, not heard; the patient complaining of pain at the metacarpophalangeal joint on the palmar side. I have found in this case that when the flexor tendons are manipulated in a peculiar way, she can flex and extend the digit freely. The manipulation is hard to describe, but it consists in so guiding the tendons that their movements are not arrested. I have shown others so that they could also accomplish the manipulation, and it immediately convinces them that there is in the case no trouble with any of the articulations, nor any contracture of the muscles or shortening of tendons. In fact, the case is easily diagnosed after having heard a description of the malady. I can detect no distinct, at least no moving, nodosity. But there is pain on motion, and tenderness, and possibly some slight swelling along the tendons. The condition is plainly traceable to a sharp blow over the back of the hand from a stick received several years ago.

The recorded cases from all sources number forty only. The most frequent causes are rheumatism and traumatism. The prog-

nosis is generally favorable, for the improvement under suitable treatment is in most cases rapid. The object of treatment theoretically is to remove the nodosity on the tendon, allowing free movement to be re-established. Practically electricity and applications of iodine have proved to be very successful treatment.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.	The following letter in reply to a communication from the Chairman of the Com-
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mittee of Arrangements, shows clearly enough the spirit of welcome which awaits the members and friends of the Mississippi Valley Medical Association at its annual meeting in 1887.

CRAV ORCHARD SPRINGS, KY., }
September 16, 1886. }

DEAR SIR:

In reply to your favor of the 7th inst., I am pleased to say we heartily endorse the terms of your invitation to the great Mississippi Valley Medical Association to meet here the second Wednesday in July, 1887. You are personally aware of the superior accommodations afforded by our hotel for conventions. We can easily accommodate 600 persons in the hotel, and cottages adjacent serve to make our capacity ample for five hundred more. You can assure your Society of our ability to accommodate all who honor us with their presence.

Thanking you, sir, for securing the meeting of so large and influential a body at our Springs, I pledge the company's best efforts to please all who come. Our rate on this occasion shall be \$1.50 per day to all who attend your meeting.

I am, sir, with great respect, your obedient servant,

WILLIAM T. GRANT,
President C. O. S. Co.

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EYE, EAR, AND THROAT.

THE HUMAN
COLOR-SENSE.
BY
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AND
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PHILADELPHIA.
(In the American Journal of
Ophthalmology.)

Were one a Comtist student of light and color, he could point to no branch of human knowledge, illustrating, at least so far, more appositely than that of chromatics, his master's three-fold division of the states of

science, into "theological, metaphysical and positive." For untold ages men had worshiped the sun, the stars, fire, light, with all degrees of intellectual abjection, or intellectual perfection, from the lowest fetichism of a savage to the most idealized symbolism of a Dante, before the subtle but simple conception of the undulatory nature of light, or the "metaphysical" explanation, occurred to the mind. Thanks to the labors of many great students and profound thinkers in the past three hundred years, we are now in the clear as to this second stage; the physical causes of vision are quite decisively settled; the causes of ether waves, the laws of their action and propagation, their measurements and powers have all been made out, and there is probably little left in this direction to discover. Men's minds therefore turn to the "third stage," and try to show the relations, successions and resemblances of these to other phenomena. But here the Comtist theory meets a check; modern science has advanced the sphere of its activity and work into regions undreamed of, and wholly discountenanced by Comte's scheme. We are not content to study external phenomena *per se*, however wide the relations established. No science of to-day is content to see forces disappearing behind the Isis-curtain of the mind, and other and transmuted forces reappearing from that veiled sanctuary, without seeking to push aside that curtain, and learn what is the mystery there. So it is that all knowledge has remotely or

directly a vital interest in those new methods of research, inaugurated by evolution and controlled by exact science, which we call physiological psychology, or psychiatry. It is found that no study of the relations of diverse phenomena is for a moment complete or satisfactory without psychological phenomena are included.

Tyndall enjoins: "The roots of phenomena are imbedded in a region beyond the reach of the senses, and less than the root of the matter will never satisfy the scientific mind."

Only by thus extending the scope and extent of the relations of phenomena to those of physiology and psychology can the Comtist's third stage include the recent development of light-studies.

In following along the path of light in its progress toward the brain, it was but natural that the eye should have arrested the attention of students, and that the advance of optical studies should have been stopped till its mechanism and powers had been duly apprehended. Moreover, if the intricacy and marvelousness of its construction be considered, it is all the more natural that, so long as its function remained mysterious, the crux of the whole problem of vision should have been lodged in it. In this way arose the idea of its specific functions, and from Herschell and Newton, to Young, Helmholtz, Hering and Preyer, the retina has been supposed to have a differentiating and specific energy, whereby the phenomena of chromatic sensation were explainable. Gradually, however, it is becoming plain that the retinal end-organs, as well as those of other senses, have no such power; instead of this the retinal function must be held as simply correlating the physical stimuli with the psychic reaction, and without power to create specific differences in the stimuli received by it.

Some of the grounds of this new envisagement of the phenomena are to be found in Wundts' new classical work; other statements of the same necessity are expressed in articles by H. M. Burnett, M. D., in the

American Journal of Medical Sciences for July, 1884, by C. A. Oliver, A. M., M. D., in the same journal for January, 1885, and by the writers of the present article in the July, 1886, number of the *American Journal of Ophthalmology*. We there try to advance a step, and give a nearer answer to the question as to the more intimate nature of the retinal process. We described it as a refined and delicate perception of thermal differences, if not identical, certainly not dissimilar from the function of the peripheral sensory end-organs. The facts of physics and physiology seemed to demand the supposition of a retinal intermediate, vibrating in correspondence with the varying wave-length of the ether, whose kinetic energies it transmutes into its own molecular activity, and the varying degrees or heights of this molecular activity, are taken up by the cones and transmitted to the co-ordinating center for reworking into the cerebral products of color and light.

It was thus found that the result of this was to transpose the seat of the difficulty from the retina to the brain. Were we system builders, we might say that the progress of knowledge in regard to vision consists indeed of three stages: physical, physiological and psychical—the first, in systematizing and formulating the laws of ethereal vibration; the second, in tracing the laws of the transmutation or casual relations of the ether-wave stimuli and the succeeding nerve-message; the third in explanation of the transmutation of neural vibrations into the sensations of light and color.

We have said the problems of the first stage are now answered. The difficulty encountered in the second was greatly increased by what we believe to have been the error of confounding it with the third. With its supposed specific function, the mind's work was given to the eye to do, and in trying to explain how it might do what it never did do, have resulted all the *de haute en bas* theories and illogicalities of ingenious *soi-disant* discoverers.

In the belief that greater clearness has been reached by eliminating the idea of specific activity from the retinal function, and particularly in regarding that function as essentially a refined perception of differences of molecular activity, we may think more justifiable any attempt to attack the mystery in its new home. We therefore purpose offering a few suggestions as to certain aspects of chromatics from a psychical standpoint, hoping to strike more natural lines of cleavage than has happened heretofore.

In order more precisely to make clear the design we have, let us for a moment hark back to ether waves; this is all the more necessary since we could do away with the color producing agency of the retina, thus more than ever emphasizing the strict psychological nature of color. *En passant* remarked, it is a rather strange fact how little it has entered the popular imagination that no such thing as color exists outside of the mind.

The writer shall not soon cease to regret his temerity in stating this fact to a college graduate and a bank president not long since. The remark was met by the silence of dignity, but the ill-concealed look of scorn and disgust thinly veiled my friend's thorough belief that I was a fool, or took him for one in thus trying to guy him with such absurdities.

In a very few people there is a sort of vague compromise in a misty idea that the *eye* may have a little to do with the process, but in attempting to pull this poor support from under them, they would, like the banker, fly to "non-existent objectivity," rather than float in the thin air of "subjective certainty."

In the visible (interference) spectrum we have spread out before our eyes a band of ether waves, differing from each other only in their length and in the corresponding frequencies of their arrival. The wavelengths, gradually, and without any breaks, vary from .00007604 cm. to .00003933 cm.,

while the frequencies extend in the same graduated way from about 395 to 764 millions of millions per second. We know that in these facts alone consist all the differences there are out there; color and light do not yet exist—that is, if a blind person could feel these taps separately upon his finger ends, and count them, he would then know the sum total of the external phenomena. What we wish to call particular attention to is the unbroken continuity and gradualness of change in this wave-scale. There are no great jumps from waves of one frequency to those of another above, but each glides gradually and by slow changes into a frequency not greatly different from itself. But when the mind directs the eye to this band, an inconsequential result appears in consciousness. The spectral colors are not a continuously and imperceptibly changing ascent, but consists of a few large steps, or bands of colors, more or less perfectly marked off from each other by delimiting intermediate shades. Within the same color step whose hue seems in all parts identical to the eye, the waves differ often by so much as from five to ten, or even more millions of millions of vibrations per second. At other points several different tints, or even perfectly defined colors, are caused by no greater different vibrational periods.

Again, certain of these colors have been called primary or elementary; but why they have any such a quality, and why the spaces they occupy are relatively so great, and so different in extent as they are—these, with others to follow, are questions we have never heard asked, and so, of course, have never seen any attempts to answer. Yet these are the very queries that arise unbidden in the mind upon looking at this mysterious chromatic ribbon.

Sunlight, we are told, is composed of the following parts:

54	Red
140	Orange-red
80	Orange
114	Orange-yellow
54	Yellow

206	Greenish-yellow
121	Yellowish-green
134	Green and Blue-green
32	Cyan-blue
40	Cyan
20	Ultra-marine and Blue-violet
5	Violet
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Condensing the intermediates with the principals we have:

Red colors	194
Golden colors	454
Green colors	255
Blue colors	97
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We have an instinctive tendency to compare the color band or scale with the musical scale; but when we do so we are landed in a maze of difficulties. We realize in sound a higher and lower, a logical connection, order and uniformity of intermediate steps. We are, therefore, bewildered to find, as we do, that there is nothing compared to this in color. There is no up or down, high or low; there is no octave, not even a completed circle; the intensity of sensation does not follow wave-length or even luminous intensity. The maximum of luminosity is in yellow between D and E, but green, a comparatively dark and cold color to the imagination, is not vastly less luminous, while it is far more so than red, which, of all colors, stands out most vividly to the mind's eye. We are perplexed to find no law or reason governing the position, extent, or psychological characteristics of colors.

We think we shall find that much of our amazement and inability to see law and reason in the phenomena arises:

1. From our inattention to the history of the physical stimuli of the eye, to the relative quantities and persistencies of the great classes into which other waves may be divided according to the natural objects from which they have, in all past time, been reflected into the eye; and,
2. From our inattention to the psycholog-

ical history of vision, the psychical origin of color, and the influence of the mind and feelings upon color phenomena and perception.

History, then, is our hunting-ground, evolution our falcon, and the quarry we seek is answers to these questions:

1. The reason why certain colors are called primary or elementary?
2. Why the relative amounts of the primary colors vary as they do in the (normal) spectrum?
3. The explanation of the differences in the objective or luminous intensities of colors?
4. The reason of the differences in their subjective intensities and qualities?

We wish the reader to suppose himself never to have seen or heard of a spectrum, or a theory of color-perception; we know he is a cultivated nineteenth century gentleman, well acquainted with history, especially of primitive man and religions, and well versed in Darwanian principles. We can assuredly congratulate him, both upon his ignorance and upon his knowledge! If we ask him what great color-classes of visible objects have most occupied man's eye and mind in all past history, we are certain his answer (after as much reflection, *parbleu*, as we ourselves have given it) will be something like the following:

The first in overwhelming importance is light and fire; the second, the world of vegetation; the third would be blood, as the concrete representative of war and struggle, and superstitious symbol; the fourth, the sky above with its reflection in the waters of the earth. It would be difficult to name another class, for whatever other colors nature may have presented to the eye of historic man, they must have been mixtures of these, or unimportant exceptions that have left only a small and inconsiderable organic response in the psychic mechanism.

Let us briefly emphasize and differentiate these four classes of stimuli a little more closely:

I. LIGHT AND FIRE.

It has been said that stimuli of achromatic light are responded to by the infant before those of color, whence, if true, it would be rightly argued that achromatic vision preceded chromatic in the life-history of the animal kingdom. The absence of cones in many animals points to the same conclusion. Perceptions of differences of luminous intensity, as we know from the facts of color-blindness, may still give such animals much of the advantages we derive from color sensations. We allude to the matter here as of importance in showing the probable priority in time, as well as the past and present preponderance of the amount, of such sensations over those of others. With these we class the yellow and orange colors, begging the scientific reader not to start back in disgust, but to consider the following facts: The ordinary suffused daylight, even of a clear day, is slightly yellowish, and in almost all degrees of obscuration of the sun, the more refrangible rays being cut off, the indifference point of the spectrum is sent further down into the yellow band. Whether from a greater turbidity of the atmosphere, or increase in thickness of the several mile deep dust shell always present over the earth, or from the morning and evening obliquity of the sun's rays, much of the *day* of average humanity has been more yellowish than they perhaps mistrusted. This, it is probable, was more pronouncedly the case in the earlier stages of the world's life. Moreover, the rising and setting of the sun have always flooded the earth for one or two hours each day with a glory of orange or golden radiance. It is also certain that our earthly fires are of a ruddy, golden, or yellowish hue, and the scholar of mythology and early religions, knows well enough the part fire has played as a representative of the unseen divine life, or as a homologue of the recurrent changes of the lights of the sky by day or by night.

"Pyrolatry," says a life-long student and historian of ethnic religions, "is com-

mon to all religions." "Through the whole history of Aryan faith runs the fire symbolism of Mithra." "Jahveh was originally one of those sun gods in whom all Semitic worship was wont to center." Quotations from a thousand sources could be added, all of the same import. We all know the beautiful myth of Prometheus and the stolen fire. Ever since man's dawning intelligence caught a glimpse of the mystery of light, of the wonder of the strange lurid glow of the sun at eventide—nay, even back to the time when, by its aid he cooked the flesh of the animal whose blood he had shed, the wonder of fire was daily and hourly before and in his eyes.

Further reason for including the daylight, the sunshine and the fire hues under the general term golden, comes from the symbolism of gold itself, which, in all ancient faiths, as well as in the instinctive feeling of the modern artist and poet, is the representative metal and color of the divine glory and halo. Perhaps it would not be unwise to say that gold is now the standard of all values, and held to be the loveliest of metals, because it was once the symbol of all light and the ornament of the divine image.

To this consensus of reasons might be added the comparative absence of whites in nature. Clouds are sometimes a dull or grayish white, and snows, however considerable in some countries, are certainly the world over, a small and short-lived covering of the earth's surface. Wherever white sunlight falls on land or tree or rock, it is always reduced to colors by the unequal absorption and reflection following; these colored reflections are the eyes' customary stimuli. When sunlight falls on the sea only a small portion of the surface reflects white back to the few eyes there or thereabouts. So that as a fact white sunlight is generally reduced to yellowish tints, or other shades before it reaches the eye. Where this is not the case, the rays are too powerful, and producing unpleasant effects upon the eye, are avoided.

The closeness of the relationship between white and golden light is also shown by the ease with which spectral yellow, by increase of illumination, passes over into white, being as it is, the nearest of all colors to the luminous intensity of that compound. Consequently a complementary color of the lower kinetic value is all that is required to quickly heighten it into the white to which it is so closely allied.

The proportion of the spectral golden rays, 454, or nearly half of the whole, represents the overwhelming part the lights of day and of fire have played in the world's history. The unity of character running through this vast space of spectrum, testifies to the unity of the cause, and to its power both physically and mentally.

II. THE VEGETABLE WORLD.

Whose greens have taken up the next greatest portion of the spectral rays—representing one fourth of the whole—is so plainly the origin of the green band of the spectrum that it is unnecessary to go into detail concerning it. When eyes appeared, next after the golden light of day, they would certainly fall upon some of earth's verdure, and except to the city man, the proportion holds up to-day. Green is philologically the growing thing, and grass or trees covers the face of the earth.

RED Occupies the next lower degree in proportion to the spectral waves. The crimson of the fruit man ate, or of the wine he drank, the deeper orange hues of the flame points or embers of his hearth fire, the autumnal reds of the forest trees, or the expansive glory of an occasional scarlet sunset, would not, all combined, account for the proportion of space it occupies, and are infinitely far from explaining the intense and distinctive character of the subjective sensation of spectral red. It can only be explained by the role war and bloodshed, blood sacraments and rites, have acted in the history of the race from man's egress

out of animalism and *progress* to nineteenth century militarism. The blood is the life; and life, so far in our planet's history, has been a perpetual *bellum omnium contra omnes*. Nature herself, as our great Christain poet declares, is red with tooth and claw, while the condition of all savage races *now*, show that it was always so with our own ancestors. A curious and deeply instructive book has lately been published, *The Blood Covenant*, by Trumbull, in this only, and so far as our knowledge goes, can one learn something of the influence of the vision of blood shedding in the early world. It is an instructive though ghastly picture, that despite the author's sympathy and sanction, makes one shudder. Strange insights, these, into human nature, which we gain in reading of the blood drinking, blood bathing, blood ransoming, blood unions, blood compacts and friendships, blood sacrifices, and blood suppers, blood burials, blood cures and sprinklings, bloody hands and uplifted arms, blood transfusions, human sacrifices and cannibalisms, bloody burnt offerings, blood stained ark of the covenant, bloody passovers and blood atonements! And all this in times of peace! What an echo of long ages when blood shed was no mimicry! The bloody idea is certainly "nail'd wi' scriptur." This is all legend and myth; when authentic history begins, it writes of the sword and red-handed death; the record rolls on with the tired centuries depicting one monotonous tale of sanguinary strife. "War is the matter which fills all history," says a great historian. One million nine hundred and forty eight thousand lives lost in the last twenty-five years in European battles, and twelve billions of dollars worse than wasted, is the last record, with Europe a huge camp to-day. We spare the reader further quotation and detail we had prepared.

IV. THE PROPORTION OF SPECTRAL BLUE

Is small in extent and weak in power; it has a character of distance and impersonality exactly corresponding to

the sources whence this color has reached the eye. The sky is above, but man's eyes are seldom raised to it. At the horizon it often fades to the violet in which the spectrum likewise passes out of sight.

Rassemblons nos faits pour nous donner des idées.

1. In answer to the first query we started out to solve, certain colors are called primary or elementary, because they have been derived from these great divisions of natural objects we have reviewed. They have been the uninterrupted stimuli of the visual function, since the brain sent its retinal servant out to the body's surface to see by its aid. Some are, if we may so speak, more "elementary" than others in the sense that some stimuli have been either more prevalent, more powerful or more vitally interesting than others. This is overwhelmingly so of red and gold. In Swinburne's Poems and Ballads, Mr. Grant Allen found the red epithets numbered 159, the gold 143, the green 86, and the blue 25. In Tennyson's Princess the same proportions were 20, 28, 5, 1; and it was so in other cases.

2. A *color* of the spectrum occupies just that amount of space, or to put it in another way, waves of more or less extended differences of length are perceived as a single color, just as the bulk of the waves from each of these classes of objects have been most uniformly and persistently reflected into the eye during the growth of the race. Nature has acted upon the organism in these continuous ways, and the cerebral product is the spectral colors, in the proportions, and with the characteristics, we find appearing in consciousness. The largest and most persistent stimulus has been that of the gold rays—the varied shades of the diffused light of day, or the ever present mystery of fire. These have been poured in profusion into all eyes, comprising nearly one half of their total stimulus, while the green rays make up a fourth, the red less than a fourth, and the blue a still more limited amount.

3. It is a remarkable fact that the objective luminous power follows the same law, and is not caused as we might *a priori* suppose, by the wave length. According to the latest measurements, by Messieurs Macé and Nikati, the following are the relative luminous powers of the wave systems corresponding to the wave lengths first given, the highest power, corresponding to wave length 569 mm. millionths being given as unity:

$\frac{681}{0.015}$	$\frac{656}{0.80}$	$\frac{641}{1.11}$	$\frac{613}{2.52}$	$\frac{589}{7.68}$	$\frac{569}{1.000}$	$\frac{550}{9.34}$
$\frac{534}{5.12}$	$\frac{527}{4.00}$	$\frac{520}{3.14}$	$\frac{507}{1.28}$			

In order to reach the same result of visual acuity, as in the 569 rays, the quantity of light of red, had to be increased sixty-six times, of green three times, of blue eighteen times, of extreme violet 5,460 times.

The explanation of these figures will be found to lie in the physiology of the retina. The stronger waves do not, as we see, produce the most powerful effect; indeed, the luminous intensities have no relations with refrangibility, but seem to depend on facts of another order, which consist in utilizing the residue of rays left over after the absorptions of natural bodies have been satisfied. The greater the wave length the more wholly such are absorbed, until the line of the descending curve dips pretty low down in red or orange, when the residue becomes so great that the light curve takes its swift rise, to fall gradually from its crest in $D\frac{1}{4}E$, to the extreme end of the visible spectrum, where the dispersive forces of atmospheric refraction allow few of the more refrangible rays to pass to the eye. So the retina has learned to react, not to the most powerful or to the finest, but to the most continuous and steady stimuli. Its response, therefore, is more perfect to the gold rays, next to the green, lastly to the red and the blue, as Macé and Nikati have found.

4. But there has been a great failure to differentiate the objective from the subjective intensity. Confounding these wholly different phases has resulted in the *non sequitur* of Magnus and Gladstone, who think red was the first of the colors historically

developed. To this we shall return later. Color being a creation of the mind, and after a double transmutation of forces, it follows that its subjective character, may, in part, be independent of objective causes, or direct stimulation—may be a complex whose elements are by no means all gained through the retina or the visual mechanism. A thousand facts prove, that of all the senses, vision is the most freed from the bonds of logical and necessary connection with the primary sources of stimulation. No fact is more strikingly characteristic of this law than these differences between the objective and subjective intensities of colors. As we have just seen, the order of the former is the highest in gold, falling then to green, red, blue; the order of the second is red, golden, green, blue; and precisely this order tallies with that of the vital and personal connection with man's life of the four classes of natural objects we have named. The mordant acids of life's needs and passions have eaten these tones deeply, or less deeply into man's brain, according as they have in varying degrees been associated with his miseries and gratifications. Only on this principle can the vivid and powerful effect of red be explained. If private and public blood shed, if social and religious blood covenants, all of which have always been bound up with every day of humanity's advance—if these would not have bitten into his being an intensity of response unapproached by all other chromatic stimuli, then, the laws of reaction and association taught by scientific evolutionists are empty of force and void of truth. In the language of physiological psychology, this fact might, perhaps, be expressed as the demand for more numerous connections with other cortical centers corresponding to the variety of interest the stimulus excites in them, and the power required in co-ordinating the multitudinous waves of emotion called forth.

The most valuable thing to a man is, of course, his life, symbolized forever, in fact

and in covenant, in rite and in ceremony, by his blood. Next to this comes the light of day and of fire, which he has always represented to his mind, as it has been to his eye, of a golden hue, under which term may be accurately grouped the changing effects of the ruddy, orange, or yellowish whites of light and fire.

Among earth's vegetation man has, of course, built his home; but there is in the subjective green a lack of power and intensity exactly corresponding to the nature of our impersonal and semi-independent relations to the verdure and growing things about us. In blue these qualities are exaggerated into the feeling of distance and coldness and elevation, derived, of course, from the far away mystery of the sea and sky.

THE INTERMEDIATE COLORS OF THE SPECTRUM	Should be considered for a moment. The fact of their existence is almost forgotten by color students. This neglect is all the more remarkable when we observe their amazing extent. While each pure "primary" color comprises from forty to eighty parts, we find the mixed intermediates stretching out to 140 between orange and red, to 114 between orange and yellow, and to 327 between yellow and green! Strictly speaking, these are just as "primary" as the other shades we call red, or yellow, or green. The whole nomenclature is relative, a mere thing of custom. If simple spectral space occupied, or, if the proportions these intermediates bear to the whole number of rays, were decisive, the small spaces of the purer colors would serve as the unnamed delimiting lines for the other and larger stretches and quantities. The extent of these spaces shows us how differing nature's "colors" are from those of the mind, or rather, what receptacles and constructions the mind puts upon the color intimations or hints of nature. Nature's colors are always broken and mixed; the spectrum gives us homogeneous wave systems, sorted out of the com-
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pound and arranged seriatim. The prism brings order out of chaos, whilst the mind still further idealizes and reconstructs for itself another world out of the spectrum, by ignoring the mixed intermediates, and emphasizing the small spaces more pleasing to it.

But, keeping close to nature, we must ask concerning the significance of the extensiveness of these spaces. This can only lie in the fact that nature's colors are not saturated (from homogenous wave systems of maximum strengths), but are always from mixed wave systems, culminating in a higher average of those of one of the four primary colors in each of the four classes of phenomena mentioned. The ocean swell may be made up of many lesser crests and troughs, but there is always one point where the general variations reach their maximum, and this would correspond to the narrow limits of the *pure* color. But between these crests are large regions of intermediate mixture. Between the pure hues of the deep autumn reds, and the paler yellows, and beyond the rapid instants of ruddy flames and setting suns, are the multitude of ever changing tints of brighter glows, which account for the 140 parts between spectral red and orange. In a like manner we perceive the the rationale of the 114 parts between orange and yellow, whilst the protean changes and mixtures of the ever varying light, playing amongst the myriad tinted shadows of the infinite variety of vegetable forms, produces the enormous interspace represented by the 327 intermediate parts, between the yellow and the green of the spectrum.

It will be seen that our endeavor has been to institute a correspondence between luminous stimuli from the natural world, and the chromatic effects of the spectrum's analysis, upon the mind. In all text books and expositions of chromatic and prismatic phenomena, the facts are placed before the awe struck mind of the beholder without a word more explanation than nature herself vouchsafes. "Beauty is its own excuse for

being." The colors, forsooth, are produced by the varying wave lengths; but why the order, why the quantities, why the amounts, and a thousand other whys—these have always been starting up in the mind of the cause-seeking student. His answer has been the old one given to little Peterkin, when he wanted to know "what was it all about." We indulge the hope that by some such method as we have tried to strike out in this crude fashion, the answers must be finally found. Our color sense must be the organism's response and reaction under stimulus; in a word, it must be investigated by the methods of study which evolution has taught us to use with such brilliant results, in all other departments of biology. The hand of man, the wing of a bat, the dog's fore foot, and the horse's fore leg, the bird's wing and the seal's paddle—these are all modifications of one structure, according to the work to be done, and in response to the peculiar stimulus; just so the cerebral products of multiform color stimuli have left their psychical analogues in our own complex color sense. The historical and comparative method must likewise be adopted here. For two thousand years psychology hardly advanced a step, because it only interrogated the single and then present mind. Deductive and *a priori* cloud capping systems of metaphysics and speculation ended in Hegelian Quixotism, and "subjective camels" of strange morphology. Survival of the fittest and comparative methods put an end to all that, and it may be hoped that the same historical method will unravel chromatological problems which have, as we have seen, not been even stated so far.

To a genial and enthusiastic popularizer of the evolution philosophy is due the honor of the first tentative effort in this direction. Mr. Grant Allen (*The Color Sense*) sought to explain our color sense through its development, at first, in insects, seeking the nectar of flowers, and also in frugiverous animals, by spying out colored fruits. The book is inherently interesting and valuable; the

theory is good enough so far as it carries, but it is not to be forgotten that the flowers are absolute creations of the eyes, and not the eyes of the flowers; it is hard to escape from the logic which demands a pre-existent color sense of some kind before flower and fruit could utilize the owners of eyes as their messengers and express agents. Apart from this, we are, if at all, certainly *very* remote descendants of insects, and are quite far away from the birds and such frugiverous folk.* It remains to us a marvel of oversight, a curious instance of *idée fixe*, that the great sweep of the mighty forces we have tried to hint at as casually operative in forming our color sense, should have escaped the gaze of this writer, otherwise so keen of sight on the evolution trail. To have credited these two influences, which, however real and operative in their limited field, were yet trivial and comparatively of little reach, with the construction and organization of our widely complex chromatic sense is a fatal illogicality. He should have taken to heart his own noble and true saying, that, "Evolution forever impresses upon us the lesson that if we would be good philosophers, we must forget our philosophy."

We may in passing allude to the discussion concerning

THE HISTOTICAL
ORIGIN OF THE
COLOR SENSE.

Gladstone as a Homer student, and on simple philological evidence, tried to show

that "they who fought at Troy" were as blind to certain colors as Homer himself (supposably) was to all. Dr. Magnus, in Germany, drew the same conclusion from a wider sweeping of word lore. The whole affair was a dismal collapse, and Allen pricks the bubble with justifiable satisfaction. It was hardly to be expected that if ants, bees and birds had such highly developed chro-

matic powers, even savage men should be so far behind them. Present day barbarians have essentially the same power in this respect as ourselves, though extreme delicacy of perception is, to be sure, not so highly developed, and their nomenclature would of course be very faulty or deficient, as Gladstone and Magnus might have supposed. The savage delights in color, as shown in tattooing, and decorating his body, presupposes the ability to feel the differences in color quite as accurately as the birds, whose bright plumage he adorns himself with, and who has no words for colors either. The development of color perception lies far back of all this, and is as old as hunger in satisfying which, and by the attacks and escapes of enemies, it quite certainly took its rise. The sobering remark of Wallace is also *a propos*, that it is the absence of color that would require accounting for; he says that the most conspicuous pigeons, whether by their color or by their crests, are all found where they have fewest enemies. There seems indeed to be an exuberant energy in all organized things, which is only kept from developing variations, and ornaments, and bright colors by the necessity they are under of escaping pursuit or hoarding their powers. So it may at last turn out that animals are as bright and beautiful as they can be, consistent with the more important law of self-preservation.

The fact that $\frac{9.9}{10.0}$ of all color blindness, perception of red seems to be the deficient power, would imply that it were the latest, instead of the earliest acquirement, as has been held.† The delight of children and sav-

* As to reasoning concerning the subjective quality, or character of the sensations of color in animals, it must for the present be pronounced out of the question. The subjective expression of the stimulus can only be compared in beings whose minds and psychological histories have been the same or similar to our own. The character of red, e. g., to the animal, as to us, must depend upon the connection of "red" things to the past history of his race.

† A great support of the Hering theory lies in the bipolar nature of color blindness, red blindness being always or generally associated with green blindness. But if red be thrown out of the complex of elements making white, by some unexplained pathological condition, the resulting unity of white, the indifference point of the spectrum, is moved forward into the green space, and the neutral indeterminate we call white, supplants the green sensation. By a musical note, continuously sounded, the ear becomes incapable of hearing that note; silence results; so, blue glasses continually worn, destroy the possibility of perceiving blue. In this way the transparent or invisible nature of the indeterminate compound we call daylight white, is explainable, and the similar extinction of green, when red is thrown out of the compound. In total color blindness, blue sensations are wanting from the same reason, that the indifference point is removed to a place usually occupied by blue.

ages in red, and the coarse æsthetic sense, might in part, be explainable in the same way, but more accurately and perfectly by the subjective vividness and associations resulting from numberless centuries of blood covenants and bloodshed. Red is the color of war; savages tatto themselves with it to arouse their own blood-thirsty instincts, and to strike terror into the hearts of their enemies. That the prevalence of red pigments in nature, the ease of procuring the ochreous earths, and the relative difficulty of getting other pigment colors, would explain the savage predilection for red, is perhaps a slight coign of vantage, but it remains still an example of the triviality of the arguments to which theorizers have been driven. In continuance of the same symbolism as the bedaubed Indian gives to red, it has continued till to-day as the color *par excellence* of military uniforms. The delight in it by the crude æsthetic sense flows naturally from the ages of history when bravery and courage were in man almost the only, certainly the highest of all qualities.

<p>THE ÆSTHETIC SYMBOLISM OF COLOR.</p>	<p>In accordance with our conceptions of the origins of our color sense, there should be a natural association and symbolism of the different colors with the great classes of our emotional states. If a man himself is the concrete result of cycles of permanent reaction between organism and environment, then his visual sense must find its ultimate explanations in the same process, and, like them, look forward to extension and perfection, on the same lines as its development has followed. Now, upon looking within, it is not a little startling to find the great divisions of our psychical nature corresponding with the great associations and divisions of our color sense. It would be still more striking, if we were not now partially aware of the role color has played in history and the development of the mind. All objective existences are perhaps more</p>
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vividly represented to the imagination as colored things, than in any other way, and their associations with the woes and joys of life point to no fanciful symbolism but one which is quite as real and vital as the emotions whence he draws his mental life. Classifying the directions and methods of mental activities, we find them to fall naturally into four classes:

1. Those of the Passions, the emotions pertaining characteristically to the sensual life;
2. Those of the Intellect or Reason;
3. Those of Utility and Labor;
4. Those of his Spiritual, Moral and Religious Nature.

These we find to correspond in an exact and specifically real sense with the four analogues of the chief colors previously set forth. Blood is the life—the nearest, most precious, and vivid of all things or thoughts. Golden light is next in its necessity and nearness to our daily life; of green we are somewhat more independent, while blue is far away and beyond the reach of our earthly cares and wants.

The symbolisms of red are, therefore, perforce, those of the two great factors of history, War and Love.* That only the brave *had* the fair, is much truer than that only they *deserved* the fair. The passions, therefore, which stir the blood and heart of men to action, the emotions of honor, vengeance, valor, love, friendship, protection,† etc.—these are the fitting homologues of the vigorous challenge of red.

In the same definite way the symbols of golden light apply as fittingly and 'restrictedly to the light of reason and intellect which, flowing over and through all the world's ways, alone promises that clearness of vision by which we can walk in the labyrinthine ways of crowding passions, necessities and duties.

* Hargraves Jennings and his Rosicrucians would find a not unjustifiable connection between love and a "blood covenant," which at recurrent lunations has emphasized the underlying unity of these two great passions, before the phallic worship at the roots of all primitive faiths had passed into multitudinous rite and symbol.

† Reference to Trumbull's book must again be made for clearer explication of these words.

But it is in the world of earth's verdure that man's daily life is cast, and among which he builds his home. This, with its cultivation and shade, its fruitage and various sustenance gives him occupation and rest, food and contentment. So in our psychological analogies, green may stand as the every day color of general back ground, of labor, of use, of home life, peace and rest.

Lastly, how appositely blue represents the spiritual life of duty and religion! Blue, derived from the changeless deeps of the arching sky—overcast, perhaps for a time, by the passing clouds or mists of mundane change and chance, but always still there, the same forever, the same by day or by night, distant and yet constantly watching over us, impersonal, yet ever in touch with our strongest passions and humblest utilities.

RATIONAL
TREATMENT
OF NASAL
CATARRH.
BY A. G. HOBBS, M. D.
ATLANTA, GA.
*Professor of Diseases of the
Eye, Ear, and Throat,
in Southern Medi-
cal College.*

To treat successfully the diseases of the upper respiratory tract it is necessary that we have a full knowledge of the various means of examining the diseased parts, else our diagnosis will be guess-work,

and our treatment as liable, if not more so, to do harm as to do good. With some physicians there seems to be but one name, and I might add, but one treatment for all diseases of the nose characterized by a discharge. It matters not whether the discharge be caused by a nasal polypus, a sarcomatous tumor, a fibroid, a foreign body, an ulceration, an hypertrophy over the turbinate, or an atrophy of the mucous membrane, it is all called *catarrh* and is treated in the same manner, by some so-called specific, by means of an anterior or posterior nasal douche or by the introduction of some irritating powder. These so-called specifics are always irritating and often very painful, so much so, that their

use can not be, and fortunately is not, persevered in.

The practitioner who invariably resorts to this mode of procedure in a routine way generally, knows as little about what is producing the discharge as his unfortunate patient. Is it any wonder, then, that catarrh is regarded as incurable when it is so universally treated without any discrimination? Almost any medical journal we pick up contains some catarrh remedy vaunted as a *sure cure* without regard to the cause or character of the disease.

Since it is a fact that a large proportion of the communities in which we live suffer with some form of nasal catarrh, does it not seem strange that its pathology is not more generally studied, when the same amount of labor in this direction will give us better results than in almost any other towards an amelioration, and, in most cases, an entire cure of the disease? We have to treat the pathological conditions as we do in other diseases when we reach success. There can be no specific for a nasal discharge that may have so many causes.

If we would proceed rationally then in these diseases, the first thing we should do is to ascertain by a careful examination the cause of the discharge and the condition of the nasal membrane. If caused by a polypus, this must either be extracted with a snare or by the application of chromic, acetic or nitric acid, or by the thermo-cautery. If it be caused by a fibroid or sarcomatous tumor the same means must be pursued, but either will be more difficult to extract than a polypus. If by a foreign body, it must be extracted. If by an ulceration, it must be locally cauterized and constitutionally treated, or both, as the case may demand. If hypertrophic tissue is found on the turbinates, it must be snared away if large, or scarified if it partakes of the nature of cavernous tissue. All of this should be done with practically no pain by the thorough use of cocaine.

In the meantime, what should be done in

these cases or in others where no tumors are found? Should the anterior nasal douche be used containing some irritating astringent? Never! Because it does not reach any part of the nasal fossa except the floor, and while it may wash out some of the accumulations contained there its secondary action of causing the tissues to swell will overbalance the only good it can perform—that of washing the floor of the nose.

Should the posterior nasal douche be used? *Never!* While it can do no more good (if effectually used, and not one person in ten can ever learn to effectually use one) than the anterior douche it may do a great deal more harm by throwing the fluid into the eustachian tube and causing middle ear inflammation.

Then what is to be done when the catarrh is found to be due to an inflammation of the mucous lining of the nose (the result in nearly all cases of a succession of colds) without a polypus or a tumor, or a foreign body, or an ulceration?

Sprays containing some emolient and non-irritating fluid, such as wormed vaseline, furnish the only rational means of reaching every part of the diseased membrane for the purpose of cleansing and medicating without irritating it. It is necessary that the material used in the spray should be perfectly harmless to the healthy tissues, exert a soothing influence to the diseased tissues, and have a tendency to lessen the inflammation.

These sprays should be applied both posteriorly and anteriorly. After the parts are thoroughly cleansed any astringent, resolvent, or alterative, such as pinus canadensis, eucalyptol, sandalwood oil, wintergreen oil, pure terebene or carbolic acid, as the case may demand, may be added to the vasaline spray in small quantities.

It should be remembered, however, that no spray treatment should ever irritate the parts to which it is applied; hence the strength of the medicated spray should be gauged accordingly.

These treatments should be made daily

by the physician himself for some weeks, then three times a week, and twice a week, according to the case. In this way alone do I believe that the great majority of nasal catarrhs can be cured.

As to the constitutional treatment, I do not believe any is necessary except as indicated by the systemic condition. A torpidity of the bowels or kidneys should of course have laxative or diuretics. A weakened condition of the system will also demand tonics and stimulants, but in most cases no internal medication will be found necessary.

DENGUE AT DALLAS.

[Extract from a private letter.]

Did you ever have the Dengue? if not, you know nothing of the utter emptiness of all sublunary things. It contains more aches to the square inch than any known disease. Your brain is a seething cauldron of improbable and impossible fancies; refreshing sleep, save from morphia, is a stranger to you. Your back feels as if it was made up of mosaic, and every piece put in awry. Limberger cheese is ottar of rose by the side of the breath of a dengue patient, and the taste in his mouth is like he had feasted hartily on carrion crow well cooked in the concentrated essence of pole cat. Your arms and legs are useless appendages, save to keep you painfully aware of their full quota of aches; the downiest bed seems but a corduroy road; and, you can only tell when convalescence sets in by feeling even more miserable than before, and you get up chiefly to try and change the monotony of things. Every other person, nearly, in Dallas, has had it in some degree, and you would think the city was put over an earthquake, or all its inhabitants had experienced religion, could you see the solemn visages, the careful, painful walk, and the utter absence of mirth from the countenances of its inhabitants. We've all had it; and the worst punishment I could inflict on an enemy would be one good, solid square case of dengue.

OBSTETRICS AND GYNÆCOLOGY.

ANESTHETICS

IN OBSTETRICS.

BY

J. P. DAVIDSON, M. D.

NEW ORLEANS.

[N. O. Med. & Surg. Jour.]

“In the obstetric art, speculation is of but little worth.” It has no place for the isms of the ingenious innovator, but must

rest upon principles, which have stood the well assured test of the experience of the united profession.

When the wonderful results produced by the inhalation of ether, in surgical practice, were given to the world, it was a natural enquiry whether so efficient an agency in avoiding the pain of surgical operation, might not be availed of advantageously in overcoming the physiological pains of labor in woman.

Professor Simpson, of the University of Edinburg, was the first to use it in obstetrical practice. In January, 1847, he effected pelvic version in a case of deformed pelvis, under the use of ether, repeating the experiment subsequently in several cases of natural and of difficult labor, and on the 10th of February, communicated the result to the Obstetrical Society of Edinburg.

In November, 1847, he substituted chloroform for ether, finding it more rapid in action, giving the same results as ether, and that it was more agreeable in its administration to the patient.

Almost immediately after becoming acquainted with his observations, experiments were made with it by others in England, France, Germany, and America. Accoucheurs became divided in opinion as to the propriety and safety of using an anesthetic in contravention of the sentence passed upon the primeval parents: “In sorrow thou shalt bring forth children.” Careful investigations of its effects were made by those who first advocated the use of Chloroform in the practice of obstetrics, in response to the doubts of many objectors.

Among the first questions which naturally presented themselves to their minds, in

using anesthetics in labor, there were some which receive a degree of light from recognized physiological and pathological facts, of such were those referring to the probable continuance of the uterine contractions, notwithstanding the complete torpor of the voluntary muscles, and the important assistance received in labor from the muscles of the abdominal wall.

Whether the same effects in fact would be produced on the muscles of organic life, as upon those of animal life. That if it was found that no such effect was produced, would not labor be retarded or effectually impeded by loss of assistance from the abdominal muscles.

Simpson found in his first experiment, the introduction of the hand and evolution of the fetus, that the action of the uterus continued, though sensation was fully destroyed.

He was acquainted with cases of complete paraplegia in which delivery took place with normal regularity, and with but little sense of pain.

Every practitioner must have seen or read of women who gave birth unconsciously to children during the profound stupor of drunkenness, and we have seen labor accomplished in cases of eclampsia during the coma attending the convulsions, without the patient being at all conscious of the birth of the child.

It is quite probable, therefore, that the obtunded sensation produced by anesthetics, resembling so closely, in many respects, the sleep of intoxication or the coma of eclampsia, might have its influence limited to sensation and to the muscles dependent on the nerves of animal life.

Numerous facts, physiological and pathological, authorize the belief that the momentary paralysis of sensation and voluntary motion, does not arrest the action of the womb.

As practitioners of midwifery, I feel sure that we can satisfactorily, to ourselves, at least, determine this question.

Opinions vary, however, among obstetricians on this point, as on many others. While some hold that neither ether nor chloroform possesses the power to suspend uterine action, others contend that the contractions are weakened and even entirely stopped.

Among these conflicting opinions, I think it possible to arrive at the truth.

Whatever the precise truth may be, to an experienced accoucheur, no doubt can exist in his mind of its being a well established fact, that when chloroform is given so moderately as to obtund, and almost extinguish sensibility, without arresting the power of motion, or inducing unconsciousness, it has had no influence over the contractile power of the uterus, and that the labor is accomplished without suffering to the patient; but that when incautiously carried to complete anesthesia, particularly in the early stage of labor, the contractions may be diminished in force and frequency to entire extinction.

Individual predispositions and susceptibilities determine, in some cases, the effect of chloroform. I have known a patient to be thrown into a state of profound stupor, in a very short time, when chloroform had been given in moderation. We all know that in many simple cases of labor the pains of child-birth are far from grave or terrible, and that women are often delivered without any great degree of suffering. In cases of this kind anesthetics may well be dispensed with, in my opinion.

Dr. Simpson, and a large number of his countrymen, recommend chloroform unhesitatingly in all labors, whether natural or difficult. In France, on the contrary, its use is restricted almost exclusively to cases of difficult parturition.

I have always regarded chloroform and the hydrate of chloral as great blessings to women in protracted and painful labors not wholly due to inertia.

I am in the habit of using them to calm the great agitation and mental excitement

which labor occasions in women of a nervous temperament; in cases of irregular contractions, when the pains are doing no good though almost constant; in rigidity of the neck of the uterus; in spasmodic action and in cases of eclampsia.

I think it a good rule governing one in the administration of chloroform in obstetrical practice, to abstain from using it unnecessarily in the early stages of labor.

If the patient is greatly agitated, or the continuous and irregular contractions harass her, a dose or two of chloral may be given to calm her sufferings, with decided benefit.

In the second stage of labor, when the head of the fetus is engaged in the lower strait and the pressure on the perineum is very great, chloroform may then be given with very great relief; but even then it is not required to be carried to complete anesthesia. A moderate use will render the patient insensible to pain, though she retains perfect consciousness of the parturient act.

TO RECAPITULATE.

I. When chloroform is judiciously administered, in moderate doses, it does not interfere with the normal uterine contractions, and that whenever the anesthesia is pushed too far, the cessation, or inertia, ought not to be ascribed to the agent, but to the abusive use of it.

2. Though not positively ascertained, the presumption is very strong, that unless the agent is carried to the point of complete anesthesia, the abdominal muscles continue to aid by their contraction the expulsive efforts of the uterus in the terminal stage of labor.

EFFECTS UPON THE
MOTHER'S HEALTH.

Reasoning *a priori*, we might expect that the relaxing effects following the use of anesthetics would be apt to cause an undue amount of post partum hemorrhage. My own experience confirms the correctness of the argument, not to any alarming extent, however, but I have

had cases where I had to remove clots from the uterus before I could secure a good contraction.

I am aware that in all these instances, the hemorrhage may have been due to various circumstances, and that there was nothing to show absolutely that chloroform was the cause. Still, it is well to be aware of such occurrences to induce prudence in the use of the agent; for since, by too large a dose, organic contractility has been suspended, why may not the same amount diminish contractility of tissue.

In those women who always flow abundantly, the undue use of anesthetics might seriously embarrass the treatment.

In practice, these facts should be kept in mind, and immediately upon delivery, a dose of ergot should be administered, so as to secure efficient contraction of the womb.

Accoucheurs who advocate the use of chloroform, with great unanimity, concur in the declaration that it has never in the least prejudiciously affected the health of the mother, while, as a universal experience, it had spared them the agonizing, and so much dreaded suffering of the last expulsive pains.

With the cautions enjoined in the use of chloroform, we may justly claim for it a safe and efficient means of not only abridging the duration of labor, but of materially mitigating its sufferings, and preventing shock.

Another indisputable benefit of chloroform is that of facilitating obstetrical operations, without which the uncontrollable movements of the agonized patient interfere greatly with the operator, but the calm of insensibility under its inhalation, enables her tranquilly to undergo the severest operations.

I am confident that chloroform has no bad effect upon the life and health of the fetus.

In the vast majority of cases, the newborn infant presents the natural and usual appearances; its cries are quite as loud and distinctly heard, and its viability is in no-wise diminished.

The beneficial effects of chloform in the treatment of eclampsia, has, I believe, the undivided sanction of obstetricians, as lessening the frequency of the convulsions, and sometimes putting an end to them altogether.

It should be promptly administered at whatever stage of labor the convulsions may occur, and in those that follow labor, its use should not be abandoned too soon after they have altogether ceased.

TREATMENT OF ACUTE DYSENTERY.

Reports have reached this office from several correspondents in the interior of Kentucky detailing the history of epidemics of acute dysentery, popularly known as Bloody Flux. Attention is naturally addressed to the various methods of treating the disease, a question of vital importance upon which there is the widest diversity of opinion and practice. Although characterized by positive indications of systemic poisoning the local manifestations of the malady are confined to congestion, inflammation, ulceration, and necrosis of the coats of the large intestine. Opium has long and justly been regarded the sheet-anchor of treatment, and in certain cases characterized by febrile action, ipecacuanha in non-emetic doses has merited the title of a specific. Quinine, too, under certain conditions, deserves an important place in the therapeutics of this disease. We desire to call attention to a more direct, and, we believe, the most effective method of treatment, viz: irrigation and topical medication of the rectum and colon.

Recent clinical observations in this country are most emphatic in confirmation of the efficiency of this method of treatment. This treatment should, to be effective, be administered by the physician himself. The patient being placed on the left side, with hips elevated, the lower bowel is filled with cold water. These injections may be repeated every two or three hours.

PATHOLOGY AND HYGIENE.

VENTILATION OF HOUSES.

The question of ventilation of public buildings has been so rarely

agitated by those competent to discuss such matters, that we are forced to recognize the most glaring and often dangerous defects when it is well nigh too late, sometimes utterly impracticable to correct them.

The British House of Commons should be taken as an example of the necessity of giving attention to these matters at the time public buildings are erected. For months the court and surroundings of Westminster Palace have been obstructed with derricks, cranes, yawning chasms, and general chaos. Mr. Shone, who, at great expense of time, money, and engineering talent, it is announced, will eventually be able to remove all traces of this rubbish and gigantic machinery, leaving only an ornamental flush window on the ground surface near the embankment end. Mr. Shone promises that the Parliament Houses shall be properly drained and ventilated by February next.

Sir Charles Barry, who had this matter in hand at the time these buildings were erected, had a quarrel with the authorities and refused to give up his drawings; he is long since dead, and the drawings are nowhere to be found; therefore, Mr. Taylor, an architect and civil engineer in the government service, has succeeded in discovering that the old sewer, which was much too large, must now be curtailed by the introduction of a twelve-inch iron pipe, coated with Dr. Angus Smith's material to prevent rust.

A device has also been introduced to prevent the injecting of steam from the laundry and heating apparatus into the sewers, thus liberating large quantities of sewer gas which readily finds entrance to all parts of the house. The laundry is to be entirely removed from the main building; the various lobbies are to be supplied with better ventilation, and the horrible old water closets, which so long occupied the basement, are

to be entirely removed and placed where they can not be any longer a source of general annoyance.

Mr. Taylor thinks he has now a complete map of all the details concerning the present location of the drains, how they run and what improvements are required to make them secure against leakage.

It is thought Mr. Plunkett, a member of the committee on inquiry concerning the ventilation of the House of Commons, will be able to direct from "Speaker's Green" the whole management of the drainage and ventilation of the Parliament Houses; it is hardly probable, however, that the whole management should be centered in one head. Meantime the world at large may draw conclusions from this bit of experience at Westminster concerning the terrible results of faulty systems of ventilation and an imperfect drainage.

In this country, noted for its palatial private dwellings, and its handsome public buildings, where every facility exists for combining the newest and best devices for perfect drainage and ventilation, one would naturally conclude little ground exists for complaint. It is far different, however; in fact, "What is everybody's business," certainly is in this country at least "nobody's business," consequently court-houses, town halls, municipal, and State buildings of every character and class are found almost everywhere with insufficient drainage, and with no other attempt at ventilation than the placing of doors and windows. During prolonged sessions of the courts in winter, judges, clerks, juries, lawyers, witnesses, and everybody about the Louisville Court-house are made to suffer for the want of a proper system of drainage and ventilation; yet Louisville is, in this respect, even better off than some of her neighboring cities.

As to the matter of ventilating private dwellings, the occupant is chiefly dependent upon the mistakes of the carpenter for the only breath of fresh air he ever gets at night, and as for the matter of drainage no atten-

tion at all is paid to it. The only arrangements made in this respect are such as are intended to carry safely from the roof all the ordinary rainfall and the melting snows, and even these are frequently conducted into cisterns directly without filtration, to be pumped up for use by the family.

To provide for all these unfortunate defects it is necessary in the arrangements of the plans of construction of buildings some attention should be paid to the scientific principles governing such matters. The architect who plans the structure of the building should at the same time plan the plumbing, and determine for himself both ventilation and drainage. However economical the plan of the building may be, there should be no stint as to drainage and ventilation. Thousands, it might be safely said, die annually, and that too in the homes of the rich from sewer-gas poisoning.

USE FOR GERMS.	An Italian doctor has at last discovered a use for germs. It is well-known that different species of germs do not always thrive well together. It is found by experiment that the germs of ordinary decomposition are so much more vigorous in their development that the germs which produce consumption are not able to grow with them. The strong germs run the others out, just as pig weeds will run out more delicate plants in a neglected garden. It occurred to the doctor that he could introduce the germs of decomposition into the lungs, and thus get up a fight between the two kinds of germs with a view of running out the germs which cause the disease. So he had several patients inhale a spray holding in solution putrefactive material swarming with germs. He reports several successful cases after treatment for three months, so there seems to be a prospect that before long it will become fashionable to cure germs by means of germs, and we may soon have specialists devoting themselves to the germ cure of germ diseases.
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It would seem that the germ is likely to prove himself not such a bad fellow after all when science has harnessed him down to useful work. The line of study which germologists should now undertake is, finding out what germs are incompatible; then when any particular variety of germs is found to have gotten possession of the body, all that will be necessary will be to introduce a stronger germ of an unfriendly variety, and let them fight it out.—*Good Health*.

POISONOUS CLAMS.	According to recent researches, it appears that clams, or mussels, are not a very safe sort of diet. Reports are often made of severe and extensive sickness due to the eating of mussels, and investigations which have been made show that the poisonous part of the mussel is its liver. The clam, as well as its relative, the oyster, is a scavenger. This is probably why nature has given it its enormous liver to enable it to live on its gross and unwholesome diet.
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The liver of the clam, like the human liver, is a self-sacrificing organ, and gathers the poison of the clam's filthy food into itself, thus protecting the rest of the creature's body. The experiments made, show that if rabbits, or other small animals, were inoculated with the liver of the poisonous mussels, they died in one or two minutes. A German doctor, who has been engaged in this investigation, advises that shell-fish should be discarded as an article of diet, as it is impossible to tell poisonous fish from healthy ones in any other way than by trial. It certainly seems as though there were plenty of good foods among the great number of fruits, grains, and vegetables, with which nature has bountifully supplied us, without ransacking the bed of the ocean for these slimy scavengers.—*Ibid*.

THE water of cisterns collected in warm weather always contains dangerous foreign matters, and should not be used without filtering and boiling.

BOOKS AND PERIODICALS.

THE HISTORY
OF KENTUCKY.

From its earliest discovery and settlement to the present date, embracing its prehistoric and aboriginal periods; its pioneer life and experiences; its political, social, and industrial progress; its educational and religious development; its military events and achievements, and biographic mention of its historic character.

BY HON. Z. F. SMITH,

Ex-Superintendent of Public Instruction of Kentucky.

Sold by subscription only. Courier-Journal Job Printing Co., Publishers.

Chenault, Col. John Mason Brown, Dr. Dudley S. Reynolds, and Prof. Jno. R. Proctor.

In his introductory chapter Mr. Smith considers chronologically the various attempts at writing Kentucky History, introducing more than 500 bibliographical references.

The work is handsomely illustrated throughout, beginning with a frontispiece of the author, portraits follow of Jno. Fillson first historian, Richard Collins, and Reuben T. Durrett. Fillson's "Map of Kentucke" concludes the introductory. This map represents the Kentucky frontier bordering the Ohio River, beginning 321 miles below Fort Pitt, and extending 220 miles below the Falls at Louisville.

There were then three counties in Kentucky. Fayette in the north and central parts of the State, Lincoln in the southeast, and Jefferson occupying the southwest, including an extensive tract called the Green River Plains. The southern boundary of the State included a part of the Cumberland River, and the whole of Green River. Upon the northern boundary, on the banks of the Ohio, at the mouth of the Scioto is located a Shawane town. Along the valley of the Scioto are various Indian towns belonging to the Shawanes back to the Mingo nation. The Chillicothes, the Peck-

This is a handsome work of 824 pages; it is dedicated to the memory of the pioneers of Kentucky, and to the youth of the Commonwealth.

In the preface the author acknowledges his obligation for valuable assistance rendered by Col. R. T. Durrett, Dr. Richard H. Collins, Prof. William

aways, and other Indians inhabited every particle of the territory on the north bank of the Ohio River as shown in this map, and Fillson himself perished in the forests where Cincinnati now stands, about the 1st of October, 1788. He had gone to the other side of the river prospecting to establish Losantiville, now Cincinnati, and while engaged in this work was taken by the Indians.

Facing the beginning of the first chapter is a map of the great Ohio Valley, showing Boone standing upon a cliff gazing at the great herds of buffalo grazing in the bottom lands, some drinking water from the Ohio. On an opposite cliff appear two Indians who seem just to have discovered Boone.

The history is written in a charming style, and is not only interesting to the reader, but in many parts fascinating.

Early in the year 1773, Mr. Smith says, page twenty-five, "Kentucke was a part of Finncastle County, Virginia, of which Wm. Preston was surveyor; Hancock Taylor and James Douglas, were deputy surveyors under him. Col. Jno. Floyd, who was another deputy, was then in Kentucky surveying land for himself, and for land speculators of capital and influence, whose cupidity was inflamed with the confirmation of the reports of the genial climate and generous soil of the now famed Eldorado beyond the mountains."

Distinguished representatives of the Prestons, the Taylors, the Douglasses, and the Floyds still own much of this same land in Kentucky.

Concerning this party of land surveyors, Mr. Smith continues at page thirty, "In the latter part of July, Hancock Taylor, whose brother Richard was the father of President Zachary Taylor, while surveying near the mouth of the Kentucky River, was shot and seriously wounded by the Indians.

Following this event many sanguinary engagements between the whites and savage tribes marked the fierceness with which the right of occupation of the lands was dis-

puted. Says Mr. Smith, "In 1774 a storm-cloud had gathered, whose ominous threatenings aroused the Colonial Government of Virginia to a sense of impending danger, and whose fury was destined to be spent on the border settlements in the Ohio Valley. The Miami tribes of Indians on the north side of the river watched with angry jealousy the continued intrusion and usurpation by the whites of their favorite hunting-ground. This passionate feeling was warmed into a spirit of violent resistance by the irritating remembrance that they had been ignored in the treaty of Stanwix, under the demands of the six nations, and that both their tribal dignity and rights had been humiliated, and that so far the white party to the treaty had failed to appease with the gratuities which had been promised and were expected. Some massacres of peaceful Indians on the upper Ohio were reported, and this served the pretext of preparation for open hostilities."

Mr. Smith continues in this way to speak of the great Indian wars, in which the great Shawane chief, Cornstalk, figured to such great advantage.

One can scarcely read this history without feeling a sense of appreciation, not to say admiration of the valor and military genius and skill which characterized the lives of such great chiefs as Black Hoof, Cornstalk, Tecumseh, and many other great commanders of the savage tribes of the West.

The rapid advancement of the white man into the rich forests and mountain districts, and the almost magic growth and development of great cities, between which the surging tide of commerce rolls over the plains, are well calculated to arouse an intense interest in such chronologically arranged histories as that of Mr. Smith.

This work it seems from the manner of arrangement and classification of subject matter is especially adapted to the wants of the student, and the uses of those who wish facts in connected form.

On pages 610 and 611, facing each other,

are the portraits of Abraham Lincoln, who, in 1861, was duly installed as President of the United States, Jefferson Davis, who, in the same year, was duly installed as President of the Confederate States; both these renowned statesmen were born in Kentucky. Mr. Davis, on the 3d of June, 1808, and Mr. Lincoln on the 12th of February, 1809. In their boyhood these two Kentuckians left the State; Mr. Lincoln went first, to the Indian frontier then in Indiana, and subsequently to Illinois. During his early life he endured many hardships and vicissitudes. He was an active frontiersman, and yet a student untiring and industrious; he was an Indian fighter, and at the same time farmer and flat-boatman. He subsequently prepared himself for the practice of law; his history from this time is now universally known.

Mr. Davis went early in life to Mississippi, but returned to Kentucky for his education, which was begun at Transylvania University, at Lexington, and completed at West Point Military Academy in 1828. He, too, was an Indian fighter; both he and Lincoln fought in the Black Hawk wars.

Mr. Davis went to Congress in 1845; Mr. Lincoln went in 1847; that year Mr. Davis went to the United States Senate.

These remarkable relations might be continued in comparison; they are full of thrilling interest, and may no doubt serve the purpose of arousing an enthusiastic ambition in the minds of our youth.

Gen. Robert Anderson, who, as a Major, commanded at Fort Sumpter at the firing of the first gun of the great Southern Rebellion, was also a Kentuckian, whose face adorns an appropriate corner in one of Mr. Smith's pages.

Gen. Albert Sidney Johnston, who fell at Shiloh, and of whose great genius the intellectual world has expressed many marks of high appreciation, was born in Mason County, Kentucky, on the 2d of February, 1802.

Mr. Smith has a chapter entitled the "Progress of Medical Science and Literature," which will no doubt prove of much interest to the reader. It begins with the consideration of the earliest presence of physicians in the State. Says Mr. Smith, page 745, "It is probable Dr. Thomas Walker, of Virginia, is the first physician who ever visited Kentucky. In 1745, he came and negotiated treaties with the Indians for the establishment of a colony which announced in Washington Journal as Walker's settlement, on the Cumberland, accompanied by a map dated 1750."

Mr. Smith proceeds to consider the development of the medical profession of Kentucky from that time on to 1798, when Dr. Samuel Brown, of Lexington, at once began an imitation of Jeners's newly published method of preventing the small-pox by vaccination. Brown successfully vaccinated more than 500 persons within the next two years.

In 1799, Brown and the then renowned military surgeon, Frederick Ridgeley, undertook the establishment of a Medical College at Lexington. With various attempts, more or less disappointment and failure followed until 1817, when the Institution known as the Medical Department of Transylvania University was organized.

Daniel Drake, an eminent physician in the frontier town of Cincinnati, was invited to Lexington, known then as the "Athens of the West;" he accepted the place tendered him; Benj. W. Dudley, Joseph Buchanan, and James Overton, were added to the faculty. A full course of lectures was delivered to twenty students, one of whom, John Lawson McCullough, having passed a satisfactory examination at the end of the term, was formally admitted to the degree of Doctor of Medicine, the first medical degree ever conferred west of the mountains.

During the session of this new school in the winter of 1817-18, the profession at Lexington was disturbed by petty jealousies, growing out of the supposed advantage en-

joyed by the members of the faculty of the new college over the private practitioners who felt their talents equally great.

In this way the faculty was dissolved, Drake returning to Cincinnati, and Overton going to Nashville.

The following year, however, the Rev. Horace Holly was chosen President of the University, the Medical Department was re-organized, and at once entered upon its brilliant career, the faculty embracing the names of Caldwell, Brown, Dudley, Richardson, and Blythe.

In Mr. Smith's chapter devoted to the Editors of Kentucky, he accords Mr. Prentice the first place. This chapter is illustrated by pictures of George D. Prentice, Walter N. Haldeman, Henry Waterson, Emmett Logan, Chas. E. Sears, and Robt. M. Kelly.

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AND

W. E. B. DAVIS, M. D.

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Filled with professional patriotism and State pride, Messrs. Davis undertook to supply the State of Alabama with a first-class periodical, devoted to the interests of the medical profession of that State. The effort has been successful beyond the

average; it has the

real stamp of enterprise and editorial ability.

One of the leading features of interest may be found in the department of diseases of the eye, conducted by Ben J. Baldwin, M. D., Montgomery. Dr. Baldwin is an accomplished physician and a graceful writer.

The *Alabama Journal* came into existence at the same time "PROGRESS" made its first appearance. We submit it to the profession that "PROGRESS" and the "*Alabama Journal*" have already attained a growth and development amply sufficient to establish their claims to a perpetual existence.

CORRESPONDENCE AND SOCIETIES.

MATTERS

MEDICAL

IN LONDON.

By our Special Correspondent,

W. G. OUCHTERLONY,
M. D.

LONDON, ENG., SEPT., 1886.

During my sojourn in this vast metropolis, extending now over more than four months, I have seen so much and have met so many people about which it might be pleasant to read,

but unfortunately things transpire with such rapidity that what I saw a month ago is already well-known every where, and what happened here three months since already belongs to that unsavory class called "stale news."

In the first few weeks the Medical Societies were well attended, and their work quite actively carried on. It was interesting to note that the hardest working men in the profession, the original thinkers, and most prolific writers as well as those who have the largest share of practice, were quite regular in their attendance upon the various societies, and took a prominent part in the discussions.

On one occasion I was invited by Dr. Gordon, of Portland, Maine, to accompany him to the British Gynecological Society. Mr. Lawson Tait, the President, was in the chair. The discussions were carried on in such low tone that much was lost to us; indeed were I disposed to criticise our medical brethren here—I would say that this is quite a common fault with them.

Two very fine papers were presented, both on the subject of Menstruation, but neither author had any previous knowledge of the investigations of the other.

Dr. Sutton, quite a young man, had investigated menstruation in the monkey, and also in the human female, while Dr. A. Johnson, of Danville, Kentucky, had confined his observations to the latter, from young children of five to women whose generative organs had undergone atrophy from old age—for the reason already given the

discussion was missed by us; but Mr. Lawson Tait remarked to several Americans standing near that this would score one more for "Hail Columbia." Dr. Johnson has been studying under Mr. Tait, and has made all his investigations while with him—who remarked to the Society that Drs. Johnson and Sutton had advanced new theories which would in a great degree revolutionize the present views on the subject of menstruation. Mr. Lawson Tait made a remark some time ago which struck me quite forcibly; speaking of ovariectomy, he said: "If it takes a man more than thirty-five minutes to perform an ovariectomy, he should never attempt to do one."

I went recently to the University College Hospital in company with several other American physicians and saw Dr. A. E. Barker perform several operations. The first was for the radical cure of varicose veins upon the inner part of the thigh and leg. He first cut down upon the vein in the thigh, applied two cat-gut ligatures about one inch apart, and then removed the intervening portion of the vein. The same procedure was repeated upon the vein of the leg. He is a very clever operator—antiseptic precautions were used, carbolic acid spray played upon the parts during the operation; iodoform was afterward sprayed over the wound just before and immediately after it was closed. The dressings consisted of simple absorbent cotton and a roller bandage. The second operation was for the entire removal of the right mamma on account of carcinoma. This is so frequently done that it would not be worth mentioning except for the great length of time occupied in the performance of it. The disease was far advanced as could be plainly seen, yet the surgeon seemed to have doubts as to its nature. Even after the patient had been brought into the amphitheater and under the influence of ether, he cut out a piece of the growth and sent it to the microscopist for examination. The patient thus remained anesthetized a good while longer than would

otherwise have been necessary. To a practical American it appeared as though this little preliminary ought to have been attended to somewhat earlier; and certainly in a chronic case the diagnosis should have been established before the patient had been brought into the operating-room and under the anesthetic.

The character of the growth having at last been decided the patient's body was washed with an antiseptic solution. The usual incision was made, and the whole diseased mass was removed with the knife; no tearing whatever was resorted to from fear that some little portion of cancerous tissue would be left. There was very little hemorrhage, and it appeared that an enormous amount of tissue had been removed, and that the edges of the wound could hardly be brought together with sutures without these tearing through. They were, however, inserted very close to one another, and a drainage tube was placed in the axillary end of the wound. Before putting in the last two or three sutures a sponge fixed upon a holder was introduced into the wound in the axilla and all clots were removed. No spray was used, but all the instruments and sponges were kept in a solution of carbolic acid, and iodoform was applied quite freely; simple absorbent cotton was laid over the wound; the forearm was placed across the chest, padded all around with the same material; common cotton cloth was applied over this, and outside all the roller bandage. This surgeon reported a similar case operated on last week, and treated in the same way save that no drainage tube was used. The wound healed, and the patient was getting along, so far without any bad symptom whatever.

The third patient has carcinoma of the rectum; he had been operated upon by making an artificial anus in the left groin. He seemed to be doing "as well as could be expected under the circumstances."

The fourth patient had malignant disease of the tongue and posterior portions of the buccal cavity. The tongue was excised, but

unfortunately I was unable to get near enough to see any thing of the operation.

Nearly all Americans who come to Europe to study medicine go to Vienna. They say that so much more is to be seen there than elsewhere, and they are permitted to do so much more themselves, and if I am correctly informed things are allowed there which would not be tolerated in any hospital in America or England. I refer especially to the Maternity Hospital in Vienna. A young physician of St. Louis, who had spent a number of months there, told me of the following incident: In one of the wards a woman was in labor, the child's head was appearing at and distending the perineum. The professor asked one of the students if he had ever sewed up a ruptured perineum; on receiving a negative reply, he quickly took out his lancet and cut the perineum for quite a distance, and then told the student to go to work and sew it up as soon as the child had been born. However advantageous to the student, it could not be very beneficial to the patient. It seemed to me very cruel and in conflict with the humane and gentle spirit of the healing art.

A few days ago I met Mr. W. J. Evans, who I suppose is well-known in Louisville. He is the London Agent for the firm of McKesson & Robbins. I am indebted to him for many kindnesses in the way of the most recent American medical journals, etc. He told me that their medicines have rapid sale here and give great satisfaction. I am truly glad that there are some American things the English think fit for use.

I am very favorably impressed with the earnestness and zeal with which the medical men holding hospital appointments do their work—they give much time to it in the best way. The medical profession of London embraces some magnificent men, but then, we are not entirely lacking in those at home. The longer I stay here, and the more I see of medical men and matters the more I am convinced that in general culture, and professional attainments, in breadth of thought

and versatility of resource, the American physicians are at the very least fully the equals of, and in some respects a little above, their professional brethren of Great Britain. Medical men at home are ever ready to accept whatever is likely to increase their facilities for combating disease and death; whatever promises to benefit their kind, no matter who is the originator, or where the invention or discovery may come from. Over here any thing not English is not looked upon with favor, receives little attention, and is but slowly, if at all accepted.

LOUISVILLE
MEDICAL
SOCIETY.

SESSION OF SEPTEMBER 23.

[Reported for PROGRESS.]

Dr. A. M. Vance in the chair. Dr. D. T. Smith reported an interesting case of a lady about fifty years of age; mother of several children, the youngest sixteen years old. She had been in bad health since the birth of this last child, greatly tormented with abdominal pains, and finally general anasarca. He and Dr. Vance had seen the case together, and thought they were able to make out considerable enlargement of the liver. After paracentesis abdominis the area of percussion dullness diminished, and it was then concluded the liver was not at fault. The quantity of the fluid obtained was submitted to Dr. Cottell, who, after careful microscopical examination, concluded it must have come from an ovarian cyst. The thickness of the abdominal walls and the general obesity of the patient aside from the anasarca made it impossible to locate any distinct tumor; notwithstanding the iliac pains and other evidences of ovarian disease. Examination of the urine which, though normal in quantity, showed large quantities of albumen and tube casts; there were both hyaline and blood casts present in each of the specimens examined; but for this fact Dr. Vance would have felt warranted in making an exploratory abdominal section. He considered, however, with Dr. Smith that the

presence of organic disease of the kidney contra indicated any grave surgical procedure.

Surgeon John Godfrey, of the United States Marine Hospital, asked if the heart had been examined with reference to any alteration in its second sound. Being answered in the negative, he went on to say Dr. John Lynch, of Baltimore, had several years ago announced as a result of a large number of recorded observations that in all cases of organic kidney disease, marked accentuation of the second sound of the heart was observed. Dr. Godfrey, after the suggestion of Lynch, has kept notes of all the cases occurring in his observation, and has found in no instance, an organic kidney disease without very marked accentuation of the second sound of the heart.

Dr. W. O. Roberts thought as there were no physical evidences of abdominal tumor, the presence of Bright's disease of the kidney decidedly contra indicated any surgical proceeding such as laparotomy.

Dr. Keegan asked if Dr. Roberts recognized any other danger than erysipelas in an operation upon a person with Bright's disease.

Dr. Roberts replied that was the only danger to be feared.

Dr. Keegan thought the patient, passing forty ounces of urine per day, with a specific gravity near 1020, should not be regarded as in a critical condition notwithstanding the presence of tube casts and albumen. He considered the only danger in operations upon persons with Bright's disease, was the extreme liability to erysipelas; in fact, this is the only danger.

Dr. Clemens said, I should regard the condition of the kidney the most serious objection to operative procedure in the case under consideration; the shock of the operation being likely to shut up the kidneys, and the patient die of uremic poisoning. Some years ago, if my memory serves me correctly, Dr. Hunter McGuire, of Virginia, announced as the result of his observation

and experience, the adoption of an inexorable rule to perform no capital operation on a patient the subject of Bright's disease. I believe this to be recognized by surgeons of the present day as the proper rule of action. My observation led me three or four years since to announce it as my belief, that prolonged shock from surgical injury was competent to suspend kidney function so far as to produce uremic poisoning. I reported to this Society, I believe, two or three such cases; one of which Dr. Roberts will remember having seen with me. An ordinarily stout, healthy man, of about forty-eight or fifty years of age, without previous history of renal trouble, the subject of an easily reducible right inguinal hernia, was after some exertion seized with symptoms of strangulated hernia. Intense suffering had brought about a condition of profound shock. The hernia was easily reduced with, however, only temporary relief to pain and no relief to shock which continued, assuming all the symptoms and appearances of uremia. No urine having been passed for two days, I removed with the catheter about two drachms, all the bladder contained, this I found to be slightly albuminous, and to contain quite a number of hyaline and blood casts. The man died in this condition on the fourth day. The post-mortem revealed the fact that the patient was the subject not only of the reducible direct hernia alluded to, but had a nuckle of gut incarcerated in the internal ring giving no external evidence of its existence. No adhesion had taken place; the incarcerated portion simply being intensely congested. Slipping out of its prison easily when Dr. Roberts made very slight traction on it, Dr. H. A. Cottell made a microscopic examination of the kidney, which he found greatly congested with other evidence of a beginning parenchymatous nephritis; many of the tubules being occupied by hyaline and blood casts. No evidence of old kidney trouble being found.

Another conspicuous example of the influence of prolonged surgical shock upon the

kidneys I saw in a stout German man, thirty-eight or forty years of age, who fell about forty feet from a twenty-foot derrick situated on a twenty-foot wall. Striking in his descent a telegraph wire, which partially broke his fall, he landed on his left shoulder, breaking the acromian process and terribly bruising this entire region. Profound and prolonged shock was the result, and I said to Dr. Holloway, who attended the case with me, that in twenty-four hours I would show him tube casts in the patient's urine. The kidney function was nearly or quite suspended, so without evacuating his bladder so far as was known after the fall, I withdrew with the catheter, twenty-four hours after, about four ounces of urine, which contained as I anticipated an abundance of hyaline and blood casts. As he improved the urine gradually became normal in quantity, the tube casts disappearing. Then if surgical shock is capable of seriously interfering with the function of previously normal kidneys, the presence of Bright's disease should be a bar to any serious surgical operation that could be postponed.

Dr. D. T. Smith says that catheterization has in his experience been sufficient to develop such renal disturbance as to yield hyaline and blood casts; while it does not always do so, he thinks Dr. Clemens is entirely correct in the statement that all severe shocks develop serious impairment of the renal function.

Dr. F. C. Leber has not observed any severe shock to follow the occurrence of strangulated hernia; he admits, however, that every severe shock might cause such serious disturbance of the renal function as to be followed by tube casts, but he insists that there must always be hyaline, and would consider avariectomy an unwarrantable proceeding in a person suffering with Bright's disease, and does not consider that any surgical interference is indicated in the case reported by Dr. D. T. Smith.

Dr. James Clark McGuire reported the case of a young man suffering with gonor-

rhoea, who had been suddenly seized with an eruption all over the body, of a very painful and itching character; this eruption was in the nature of white oedematous elevations of the surface, generally of symmetrical form, and about the size of a silver quarter dollar; they were simply pale elevations of the skin. He tried alkaline baths and aperients without the least benefit, when suddenly the gonorrhoea having abated, the copaiva which he had been taking was withdrawn, and the eruption quickly disappeared. A few days afterward this patient having a slight return of the urethral discharge resumed the copaiva and the eruption quickly reappeared; ceasing the use of the copaiva the eruption again faded quickly away.

An obstinate case of eczema in an old gentleman between fifty and sixty years of age, covering the whole body, and attended with intolerable itching during the day and excruciating pain at night, had been subjected to a variety of treatment constitutional and local without benefit; the patient had been obliged to take large doses of morphia to procure sleep, every thing else having failed. Dr. McGuire happened to get hold of a published account of a somewhat similar case in the practice of Dr. George Henry Fox, of New York. Dr. Fox had used plain linseed oil, one pint per day, by inunction; his patient recovered. Dr. McGuire at once withdrew all other treatment and began the practice of inunctions of a pint of linseed oil per day; soon the patient experienced relief from pain, requiring no more morphia; and in about two weeks recovered entirely, so it is reported by a member of the patient's family. The old gentleman says he has gained ten pounds in flesh, and never felt better in his life.

Dr. McGuire said he did not know how the oil acted, and doubted if the linseed oil was better than some other oils, as for example, fresh lard, lanolin, or vaseline, yet in imitation of Dr. Fox's practice he had preferred the linseed oil, and was startled at

the almost magical effects; yet he could not say how it acted.

Dr. Vance ventured the suggestion it was by improving the general nutrition of the patient.

Dr. McGuire went on to report another case of *puritus ani*, a very severe case indeed, which had resisted all treatment for years. It yielded readily to the application of the compound ointment of tar and zinc, so highly commended by Dr. Bulkley.

Dr. Leber thought every one should read a recent lecture by Dr. Oscar Liebreich, in which it was shown that all the ordinary oils and fats in general use are very sparingly taken up from the skin, some of them not at all. In the case of general eczema mentioned by Dr. McGuire, Dr. Leber thinks inunction would have been well nigh useless, except for its purely local effect, protecting the skin from the air, and that this effect must have been but temporary, as the oil would soon become rancid on the surface, not being able to penetrate the horny epidermal scales which cover the surface in such cases. On the other hand, he concludes from Liebreich's showing, that lanolin having so great an affinity for water might readily penetrate. He thinks where oil cures at all, it must be by improving the general nutrition of the patient; Yet he does not think it is best always to administer the oil by inunction. He thinks cod-liver oil internally administered far from the most rational method of treatment.

Dr. John M. Clemens said that the rationale of the benefit derived from inunction of linseed oil consisted in improved nutrition, and that it left a gummy residue or film, upon the surface, protecting it from the action of the atmosphere, not for the moment only, but for the entire interval between applications. Eczema is considered by dermatologists to depend upon malnutrition—Piffard and Eustace Smith I mention as especially holding to that view. As to the power of the skin to absorb oils, it is a well-known fact that in scarlatina lard is

rapidly absorbed; also in marasmus of infants, and they might be very thoroughly anointed, and in a very few hours will it have disappeared by absorption.

Dr. D. T. Smith thought it a great point gained in the treatment of *pruritus* to secure continued protection of the exposed peripheral nerves. No doubt many cases are entirely cured in this way alone, while other cases require some constitutional treatment.

Dr. J. C. McGuire says Unna has examined different kinds of oils and fats used for inunction and found that all of them are to be classified according to their affinity for water; he finds ointments which have greatest affinity for water most rapidly and thoroughly absorbed from the skin; in fact, just in proportion as the oil will take water so will the skin take up that oil. It may be taken as an admitted fact, therefore, that lanolin enters the system very much more rapidly by inunction than any other ointment at present known, yet it is not an established fact that lanolin serves the purposes of general nutrition better than some other oils more sparingly absorbed.

Dr. F. C. Leber reported a case of a young woman who had been married fourteen days, and who suffered such severe vaginismus as to make all attempts at natural dilatation impossible. As coitus could not take place the doctor was consulted; he tried local applications of a solution of cocaine and found but little relief of the pain incited by attempts at dilatation with the finger. The doctor practiced division of the outer ring of the sphincter vagina muscle, and then with graduated bougies anointed with the oleate of cocaine, he proceeded, until he was able to pass the fenestrated celluloid speculum, an inch in diameter. Practicing these dilations daily until the patient recovered from the incisions which were made latterly on each side of the fourchette, no further complaint was heard, and the patient is now in the enjoyment of her normal condition under the circumstances. Dr. Leber

considers this such an unusual case as to justify his reporting it.

Dr. Dudley S. Reynolds reported the case of Andy Jones, aged fifteen, who, while engaged at work in a wagon manufactory, had suffered the introduction of a small fragment of steel into the eye. The foreign body struck the cornea in a horizontal manner on a line with the upper edge of the pupil; passing directly through the cornea, through the pupillary opening in the iris, it entered the crystalline lens. The accident happened Saturday at 3 P. M. At 5 o'clock when the doctor first saw the case, the aqueous humor had reaccumulated, the lens capsule was extensively lacerated, and the lenticular matter broken up to such an extent as to have absorbed enough aqueous humor to render the whole lens white; indeed so opaque was it, that no ophthalmoscopic examination could be made of the fundus oculi. The eye was at the time not painful, though it looked suffused and watery. The patient was directed to use a mydriatic, and bathe the eye frequently in cold water. Sunday morning he had a temperature of 101.5, tongue relaxed and pale, eye painful, pulse irregular; when it could be counted, which was not constantly the case, it was found to beat 130 times to the minute. The boy was sent home with instructions to take a grain of calomel at once, and at the same time ten grains of the sulphate of quinine in solution; if this should be retained he was to have ten more grains in four hours, and the same quantity again at night, making thirty grains for this day. Monday his condition was much improved, except that lymph had now appeared in the anterior chamber of the eye; and, at the point where the cornea had been perforated a sphacelus had formed. The eye was red, chemotic, and discharging hot tears in great abundance. Enucleation was decided upon, but owing to the necessity to have the consent of the boy's mother, the operation was deferred until Tuesday, at 3 P. M., when the eye was enucleated, the whole anterior

chamber was now filled with lymph, and the cornea seemed necrotic throughout. After enucleation it was found that the lower half of the globe was most violently involved in the inflammatory action, that lymph in great abundance existed throughout the ciliary region extending into the choroid body beyond the ora serrata, while the retina had assumed a pink tint, all its vessels being dilated. The piece of steel, about one sixteenth of an inch in length and about half that wide, was somewhat irregular in form with sharp edges, was found lying in the posterior capsule of the lens, having penetrated about one half its length through, one half the body projecting into the hyaloid, the other half remaining within the lenticular capsule. Wednesday the boy was in comfortable condition; this morning (Thursday) the dressing was removed, and there being no swelling, the morbid sensibility that existed in the fellow eye at the time of the operation having entirely ceased, the boy was permitted to go into the street. With a little care in the adjustment of the ocular capsule after enucleation, the compress carefully applied over the closed lids, primary union may be said to take place generally in such cases as it did in this one. This boy may have an artificial eye at once; in fact, arrangements have been made for its insertion to-morrow. I find it best to introduce the artificial eye as soon as union takes place in the opposed ocular capsule. In this way fusion of the tendons will take place in such a direction as to harmonize with the artificial eye in its new position; besides, the lids being held apart and an oval surface being presented for the flow and transmission of the tears to their natural conduits; all of those harassing phenomena incident to overlapping of the lids and retention of the tears in the orbital cavity are avoided.

Dr. S. G. Dabney reported the case of a boy who had been wounded in the eye with a rock. There being painful tension of the globe at the time, Dr. Dabney was consulted and prescribed eserine and cold applications,

which were followed by the rapid disappearance of the swelling in the lids and of the accumulated blood in the anterior chamber. The iris was protruding; the protruding part was seized with forceps and snipped off with the scissors. It was found that peripheral detachment of the iris existed on the opposite side. After the protruding iris was cut away, Dr. Dabney employed atropia drops, when the eye became suddenly painful and he was obliged to desist, returning again to the use of eserine which relieved the pain, and finally the patient recovered with sufficient sight to count fingers at sixteen feet.

Dr. R. W. Taylor reported the case of a married lady, thirty-five years of age, who had Hodgkins' disease. He tried a variety of constitutional treatment, including the iodide of iron, quinine, and arsenic, without benefit to the patient. He finally resorted to the local application of the tincture of iodine, and the enormously enlarged glands of the maxillary and supra-clavicular regions gradually subsided. Dr. Taylor thought it remarkable this patient should have resisted constitutional treatment, and that the glands, so enormously enlarged, should have so rapidly disappeared under the local use of the tincture of iodine.

Dr. Vance reported the case of a girl, eighteen years of age, with something like Hodgkins' disease in a very aggravated form, who had been subjected to the local use of iodine, and a great variety of other medicines without benefit. He treated her with one thirty-second of a grain of bichloride of mercury before each meal, and iodide of potassium in doses of fifteen grains after meals; to his great delight the patient made prompt recovery. She had been afflicted all of her life with enlarged glands, anemia, and general debility. Under the treatment she became florid, robust, and the enlargement of the glands all disappeared.

Dr. F. C. Leber mentioned the sulphocarbolate of calcium as a valuable agent in such cases.

"OPPOSED TO THE
CODE AND THE
CONGRESS."

entitled "Opposed to the Code and the Congress," in which the Faculty of the Jefferson Medical College is made to assume this attitude of hostility. You refer to "the announcement in the St. Louis *Weekly Review*," as the authority for your statements. Having forwarded to the editor of the *Review* replies to the questions he addressed to us in his editorial columns, we expect of your sense of justice that you will give place in your journal to the refutation, as you have to the accusations. Meanwhile your own comments on our supposed attitude of antagonism to two professional objects, call for notice from us, lest our silence under these imputations, be construed to mean an acquiescence in their justice.

Without referring to those accusations which we have refuted in our letter to the editor of the *Review*, we must, however, demur to your statement that we are opposed to the code, and especially to the remarkable reason which you intimate without positively asserting, is the motive of our action. We can not believe that you intended, seriously, to accuse us of "desiring liberty in consultations," to repair the losses of "declining business," and that you really mean to apply such a stigma to a body of physicians who, whatever their shortcomings from your point of view, may have been in other respects, have always been consistent advocates and supporters of the "old code," and to whom consultation, with irregulars under any circumstances, remains an impossible act. Having the conviction that you do not intend to stretch journalistic privilege to such an extent, we appeal to you to do us the justice to admit, that our disavowal of any sympathy with the new code movement, is a sincere expression of our individual opinion. Jefferson Medical College, as a corporation, occupied with

DEAR DOCTOR: In the issue of PROGRESS for September, appears an editorial note

its proper functions as a school of medicine, has not, and never can have, any thing to do with medical politics.

As respects the Congress, the position of the Faculty as individuals, is not in any way unusual or singular. Having their individual and personal rights, each one takes part, or does not take part, in the organization of the Congress, and the college does not presume to question their action. As the gentlemen composing the faculties of the chief medical colleges of the country, do not appear in the organization of the Congress, we respectfully ask why you select us out for animadversion? What right has any body to assume that we are opposed to the Congress because our names do not appear in its list of officers?

We do not doubt that your strictures are based on incorrect information as to our sentiments and beliefs, and that when all the facts are in your possession, you will not hesitate to acknowledge the errors, to admit the truth, and to render justice impartially, how muchsoever it may conflict with the wishes and purposes of those, who are agitating these questions, solely in their own interests, although behind the broad shield of the old code and the American Medical Association.

I am very truly,

ROBERTS BARTHOLOW, M. D., Dean,
For the Faculty of The Jefferson Medical
College of Philadelphia.

SEPTEMBER 25, 1886.

CHRISTIAN
COUNTY
MEDICAL
SOCIETY.

The Christian County Medical Society will meet at the home of Dr. J. P. Thomas, at Cottage Lawn, near *Elmo, Kentucky*, on the 14th of October. A hospitable reception will be provided, and it is expected a great deal of good work will be done.

Our delay in getting out arises from causes unavoidable.

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY.

DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

ROGERS & TULEY, PUBLISHERS.

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PROFESSOR

BARTHOLOW'S

LETTER.

In another part of this issue of PROGRESS will be found a somewhat remarkable letter

by the Dean of the Faculty of Jefferson Medical College at Philadelphia.

If we said any thing in the editorial to which Dr. Bartholow makes reply, which was not true, Dr. Bartholow is singularly unfortunate in his attempt to set us right. It is a matter of history, that the leaders of the revolt in New York, against the code of ethics of the American Medical Association, were supported in their attempt to seize the offices of the Congress by the Faculty of Jefferson Medical College, not perhaps as a corporation, but as individuals.

Says Dr. Bartholow: "Having their individual and personal rights, one takes part or does not take part in the organization of the Congress, and the college does not presume to question their action. As the gentlemen composing the faculties of the chief medical colleges of the country take no part in the organization of the Congress, we respectfully ask why you select us out for animadversion." Well, we will try to tell you why.

A meeting of physicians was called in Philadelphia, presumably in response to a personal feeling aroused by Dr. Jacobi, of New York, in his correspondence with Dr. Shoemaker, of Philadelphia.

If the majority of the members of the faculty of Jefferson College took no hand in that meeting, which has been properly characterized as a revolt against the American Medical Association, then our informant, and not PROGRESS, is at fault.

If it is true, as Dr. Bartholow says, "The gentlemen composing the faculties of the chief medical colleges of the country, take no part in the organization of the Congress," surely Dr. Bartholow would not undertake to say that his college stands higher as an educational institution than the University of Michigan, or the University of Pennsylvania, or the University of Virginia, or the University of Nashville, or that these are not among the leading colleges of the country.

No more conspicuous figure may be found in the regular medical profession of the United States than Nathan S. Davis, of Chicago; Henry H. Smith, of Philadelphia; Joseph Jones, of New Orleans; Alonzo B. Palmer, of Ann Arbor; Wm. H. Pancoast, of Philadelphia; besides very many others quite as much entitled to the distinguished positions they hold as even Dr. Bartholow himself would be. These gentlemen are all members of faculties in the leading colleges of the country, and officers of the International Medical Congress, in the proceedings of which Dr. Bartholow and his colleagues are proud to say *they* will take no part.

We would like to inquire if a majority of the members of the Faculty of the Jefferson Medical College, as at present constituted, have not been taking part in an organized effort to defeat and prevent the preliminary organization of the International Medical Congress, by a committee of the American Medical Association, which was charged with that work. We would like to ask, if in this organized effort to prevent the preliminary arrangements for the Congress, Dr. Jacobi, Dr. C. R. Agnew, and the distinguished editor of the New York *Medical Record*, were not the leaders, and if Dr. Bartholow was not a follower?

We recognize the good work that Dr. Bartholow has done in advancing the science of medicine in America; we recognize, likewise, the well known services of Parvin, and a number of other gentlemen composing the faculty of the Jefferson Medical College, but we insist they are entitled to no credit for having attempted to obstruct the labors of the gentlemen who were charged with completing the preliminary arrangements for the organization of the International Medical Congress.

Now, we wish it understood, we have no personal quarrel with Jefferson College, nor any member of its faculty, but it has been asserted in the *St. Louis Weekly Review*, and in other respectable journals, that Pancoast, Atkinson, and Shoemaker, retired from the Jefferson College, in obedience to the expressed displeasure of other members of the faculty, at the conspicuous part these gentlemen took in the meeting of the American Medical Association, at the time of the appointment of the so-called enlarged committee of preliminary arrangements for the International Congress.

It may be all this is not true; it may be that none of it is true; yet, the fact remains these gentlemen retired, and it was publicly charged, in respectable medical journals, as just stated; and even Dr. Bartholow in his letter does not deny it.

PROGRESS indulges the hope that the question of individual right should never again be permitted to interfere with the voluntary and faithful discharge of a professional duty, especially one which involves willing assent to an invitation to the brethren of the old countries to visit the United States, and take part in a general Congress, for the consideration of matters of professional interest.

If the matter of personal right is to withhold an invitation to visitors to the country, who come to consider professional matters; and if the matter of personal right is to be shown in opposition to the provisions for the comfortable entertainment of such visitors,

the sooner we know, in the ranks of the medical profession, at least, who are going to exercise these personal rights the better, in order that the profession may exercise its right through the public journals in criticising such conduct, and in society meetings, by ignoring such persons as are opposed to organized professional work.

AMERICAN
SPECIALISTS.

A few years ago the ophthalmologists and otologists in the East-

ern cities united in forming two organizations; one known as the American Ophthalmological Society, and the other as the American Otological Society. These societies meet generally at the same place, with the interval of a day or two between the meetings.

On the 20th of July, at New London, Connecticut, the Otological Society met. It is called the American Otological Society because it meets in America, and not because it embraces any considerable scope of territory, or includes in its membership the active workers in this specialty outside the limited territory in which its meetings occur.

A considerable number of gentlemen read papers, and took part in the discussions of questions in general in the body called the American Otological Society, July 20th.

The same persons, on July 21st, in the name of the American Ophthalmological Society, read papers and conducted the discussions. These gentlemen are very much like Professor Celestine, the pious teacher of music in a convent school, who was known outside as Floridor, the composer of music for the ballet and operetta for the varieties. 20th of July they are the American Otological Association; 21st of July they are the American Ophthalmological Association.

There are no valid reasons why these gentlemen claim a national title; they always meet in the East, that forces Southern and Western gentlemen to surrender all their claims to convenience, etc., and journey a thousand miles or more to take part

in discussions of papers, which, being arranged by programme, serve only to advance the professional interests of the gentlemen, who, being at home in the locality of the annual meetings, are able to arrange and manipulate proceedings to their tastes and interests.

We object, not to the gentlemen, nor the work they do, but to the manner in which it is done, laying claim to national organizations, which are, in fact, but local, at the most provincial.

An effort was made about ten years ago to establish a Western Ophthalmological Association, but it failed. And then a special section of Ophthalmology, Otology, and Laryngology, was established in the American Medical Association; this is the only really national organization of the medical profession in this country, and the members of this national body are alone entitled to be recognized as representatives of the various legitimate specialties in medicine and surgery.

The desire for sectional organization, long manifest in the profession of the East, has lead to dissensions, and laid the foundation for universal complaint. Any truly national organization in the medical profession should, like the American Medical Association, and the British Association, in fact, like all the National Medical Associations, be migratory in character, holding its annual meetings in different sections of the country, thus permitting an opportunity to the entire profession of the country to unite in the work of the Society claiming to be national in character.

These so called national associations of specialists, outside the ranks of the legitimate body of the medical profession in general, tend to degeneracy. They lead to an exclusivism which tends to separate them from the broad domain of the profession of medicine.

The specialist in Ophthalmology should be a gentleman possessing this accomplishment in addition to that of a general knowl-

edge of medicine and surgery. It often happens, however, that the ophthalmologist is a doctor of medicine in name only, being allowed to graduate with the understanding he will not do general practice, but confine himself to the specialty.

This loose habit of graduating men for the specialisms, has grown into a general custom in the medical colleges of the East. The evil effects of it are just now beginning to appear.

JOHN S. BILLINGS.

The address of Surgeon Jno. S. Billings, of the United States Army, to the British Medical Association at Brighton, has awakened so many diverse forms of criticism we feel obliged to direct the attention of our readers to some of its main features.

As a piece of English composition it bore marks of scholarship. For variety and character of subject matter, it established the author's claims to erudition. As to the aims and purposes of the essayist, they seem to have been multifarious.

It was clearly the aim of Dr. Billings to flatter the British Medical Association, and the profession abroad, on their pretended high standard of requirement in medical education, yet he patriotically claimed for the United States a small superior section. To establish this sectional elegance, he was principally confined, per necessitatem, to a recognition of those States in which laws have been established governing the qualifications of the medical practitioner; therefore our confrères of the "*Alabama Journal*" are pleased with this reference to that State.

That astute guardian of the medical profession of the West, the *St. Louis Weekly Review*, takes Dr. Billings to task for his attempt to justify the action of the self-constituted organizers of the International Medical Congress, on the ground of the impaired and limited intelligence of the dwellers in that particular section known as the Mississippi Valley.

Dr. Billings undertook to set up reasons for this in the wide prevalence of miasmatic diseases in this section. He says there are but few dwellers in this valley, comparatively speaking, and that most of them are sick, and that the sick man is not possessed of any great intellectual activity.

As Dr. Billings was born and reared in the Mississippi Valley, Dr. Daniel, a Prince of the profession in Texas, hints at the possibility of Billings having filched the intelligence of this section, and, carrying it off to the East, now persuades himself that all who remain are sick, *very* sick, and to prove this he appeals to geographical and climatological evidences.

Dr. Billings deserves great credit for the skill and ingenuity he employed to arouse the British mind to a study of the geography of America. We are very much inclined to suspect, however, that Dr. Billings drew either from his imagination, from Lewis and Clark's description of the Mississippi Valley territory, or from Filson's map of Kentucky, which exhibited the white settlements on the south bank, and the Indian nations upon the north bank of the Ohio.

The wide prevalence of malarial diseases so called in the Mississippi Valley, and in the South generally, yield no such fatal results as the pulmonary affections at New York and Boston. That there is a greater mortality in some sections of the South, reputed to be health resorts, or that an occasional outbreak of yellow fever, which in former years swelled the mortuary records of Memphis, and of many points along the Mississippi River, is no argument against the general healthfulness of the climate of the condemned section.

The attempt to manufacture alarming statistics for the South will do Dr. Billings's intelligence no credit, though it may have served to embellish a carefully written essay, which was evidently intended more to defeat the success of the International Congress than to present any interesting or new facts to the British Medical Association.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

At the PROGRESS Pavilion, Southern Exposition, we have samples for physicians of R. A. Robinson & Co.'s preparations, Lyon's Tasteless Quinine, Frederick Stearn's new forms of medicine, Barry's Clinical Instruments, etc. Physicians are always welcome, and have a large line of exchanges in medical literature from all over the world at their disposal.

ARTHUR PETER & Co.'s Syrupus Roborans is strictly a prescription remedy; they push it only among the profession, and rely entirely upon its intrinsic value and the favor of physicians who prescribe it.

Of Messrs. Parke, Davis & Co. we repeat, that a preparation bearing their imprint is of necessity and without fail just what they claim.

MANY of our professional brethren who used the St. Louis Air Line upon their trip to the medical meeting at Quincy, Ill., and the Knights Templar celebration at St. Louis, speak in the highest terms of the road and its service. It is a pleasant route to go by, and we are especially indebted to Mr. Geo. W. Curtis, chief clerk passenger department, for appreciated favors.

LOUISVILLE, KY., March 29, 1886.

Messrs. R. A. Robinson & Co., Louisville, Ky.:

GENTLEMEN—It affords me pleasure to state that for some time past I have been prescribing the *Syrup of Hypophosphites* and *Wine of Coca* prepared by your firm, with uniformly good results. Both are elegant preparations, and seem to have been prepared with great care and accuracy, and are thoroughly reliable. As a stimulant in cases of exhaustion, from whatever cause arising, and as an antidote to the evil effects

of Opium, your *Wine of Coca* has proven most serviceable. Your *Syrup of the Hypophosphites* presents a combination of constructive tonics and alteratives massed together in palatable form and in a beautiful solution, indicative of unsurpassed Pharmaceutical Art. I have used the latter in the debility of the old and young; with nursing mothers and with those of strumous and tubercular tendencies with most gratifying effects. The reasonable price of the preparations should bring them within the reach of all. The well known reliability of your house is a sufficient guarantee of the purity of any compound upon which its label is found.

Yours very respectfully,

COLEMAN ROGERS, M. D.

OBSTINATE CONSTIPATION.—I have a patient, a man who has been constipated four years, has called upon all the physicians in the place, neither have benefitted him, never having had an action upon the bowels oftener than six to eight days. He is now taking the Acid Mannate in small doses daily, keeping his bowels free. I have a lady patient who is suffering with a uterine trouble, and has periodical nervous sick headache (I think solely dependent upon the uterine troubles); she is also constipated. I have her upon the Acid Mannate; she, as well as myself, is pleased with its effects; her headaches are not so frequent or severe.

E. A. SCOTT, M. D.

COLUMBUS, KAN.

THE tasteless preparations of quinine are put up in sample bottles for trial by physicians. Send to Hall & Ruckel, New York, for trial package.

WE acknowledge with thanks the receipt from Wm. Wood & Co., Bond Street, New York, of a pocket medical dictionary—a good thing for students, and inexpensive.

MESSRS. JULIUS WINTER & Co., of Fourth Avenue, have a very beautiful assortment of goods for gentlemen, samples of which they will mail on application. They do much the largest business in this vicinity, and send out to their many mail customers many hundreds of “self-measurement suits” every season. See their advertisement in this issue.

SUBSTITUTION.—Does the profession realize how much injury is done to physicians and their patients by the *substitution* of spurious, or the so-called “just as good” preparations, *in place of* goods of standard reputation? The following letter from Dr. Springer is a case in point.

Respectfully, BATTLE & Co.,
Chemists' Corporation.

VAN BUREN, OHIO, Sept. 10, 1886.

Messrs. Battle & Co., St. Louis, Mo.:

GENTLEMEN—In the case of “Insomnia,” which I reported to you in May last, and wherein it required seven drachm doses (hourly, 1 drachm) to produce sleep by Bromidia bought at a pharmacy in Findlay; it required but one drachm, repeated in *one* hour, to produce a good night's rest, of the sample bottle you sent me. I also use the Bromidia (Battle & Co.) with the best results in “cholera infantum” and “hysteria.” *Am satisfied that the article bought at Findlay was “spurious.”* GEO. SPRINGER, M. D.

McKENNA whisky is especially ordered by most of our prominent physicians; they know it to be pure.

JOHN W. COOK is one of the most conscientious and reliable of our educated opticians.

IN Louisville and vicinity the preparations of Messrs. Fairchild Bros. & Foster are very generally preferred. We can very conscientiously recommend them.

QUEEN & CO. 924 CHEST. ST.



QUEEN & CO. 924 CHEST. ST.



PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN-
TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND
ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES-
SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF,
AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT
MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE
SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION
AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., NOVEMBER, 1886.

No. 5.

GENERAL MEDICINE.

HEMOPTYSIS.

BY

J. T. KEEGAN, M.D.

[Read to the Louisville Med-
ical Society, October
14, 1886.]

If an apology were
needed for presenting,
to an assemblage of
medical men, a subject
so time-worn, I should

find it in the fact that hemoptysis possesses
special and always fresh interest to the phy-
sician, and in its frequent discussion he may
meet with welcome suggestions which may
aid him in future conflicts with this calamity.
This is an accident which differs from almost
all other symptoms in this, that the medical
attendant, whether skilled or unlearned,
must make the combat with it alone, and
unaided by his professional brethren.

Before engaging this subject I will first
ask your attention to the blood, which car-
ries not less than 3,000 pounds to nourish
the tissues, and the same amount off again
by vessels to excreta in one's life. The
composition of the blood is changed in some
diseases, as in phthisis, viz: The red cor-
puscles constitute 127 parts per 1,000. In
consumption they are lowered to sixty in
1,000 parts. In the last stages of disease,
in most instances they are not lower than
seventy in 1,000 parts. The white corpus-
cles one to 500 red corpuscles are augment-
ed in inflammation. Fibrine is increased
from 2.5 to seven, and exhibits but little ten-
dency to clot. Albumen constitutes seventy
parts in 1,000 of healthy blood; in consump-
tion 100 parts in 1,000. Fats are increased
from 1.55 to 4.20.

Vol. I, No. 5—14.

ÆTIOLOGY.—*Predisposing Causes.*—First,
Age.—Statistics show that between forty and
fifty per cent occur between twenty and
thirty years.

Second, Sex.—Males have hemorrhage in
forty-five per cent, and females in fifteen per
cent of the cases. Generally speaking, fe-
males are liable to small and males to the
larger hemorrhage. Under twenty years it
is ten times more frequent in females, and
in next ten years it is twice as frequent in
males as in females, while from the fiftieth
to sixtieth year it is once more greatly on
the side of the females, two and one half to
one.

Third, Heredity.—All patients under
thirty with hereditary phthisis have hemop-
tysis. Cross-heredity is more liable to hem-
orrhage than direct heredity or non-heredity.
An heredity is drawn from the mother which
differs from that derived from the father, and
to this must be attributed the excess of cases
of profuse hemorrhage. In the work of R.
Thompson on "Family Phthisis," London,
1884, he proves the general effect of the
paternal inheritance is to reduce the number
of cases of profuse bleeding for the total
period of life, but for the special period be-
tween twenty and twenty-five years an in-
crease occurs, that females inheriting from
the father bleed in numerous cases, the num-
ber of profuse hemorrhage being twice as
many as the moderate. The effect of double
heredity on males was to make the cases of
profuse hemorrhage numerous, and nearly
fifty per cent were disposed to bleed. Fifty

per cent are hereditary, and the change is (1) in fragility of the vessels; and (2) to the catarrhal disposition.

Occupation and ventilation.—Dr. Guy collected the following: 104 composers who worked in apartments of less than 500 cubic feet, 12.5 per cent had hemoptysis; also, 115 composers with 500 to 600 cubic feet, 4.3 per cent had hemoptysis; also, 101 composers with 600 cubic feet, 1.98 per cent had hemoptysis.

Season.—The time of year most cases are recorded are transition season, spring and autumn; 100 winter, and summer 80.

Altitude.—Elevated and cold climates, except Switzerland and the Andes.

Climate.—Stimulating climates that are dry, bracing, tonic, exciting, and as a rule exhilarating. But in their evil aspect they are irritating, disposed to excite congestion of pulmonary mucous membrane, and parenchyma, to generate dry and diminish bronchial secretion where it has been copious, to render "nervous people" more so, to prevent rather than to promote sound and refreshing sleep, and last of all it promotes the occurrence of hemoptysis.

Exciting Causes.—In acquired phthisis among males hemoptysis is a well marked feature, and nearly seventy-five per cent are cases of profuse hemorrhage; in females the number of cases are smaller, the reduction being marked in the cases of profuse bleeding. Fifty per cent of hemoptysis is acquired by violent exertion, running, riding, lifting, paroxysmal coughing, loud speaking, mental perturbation, greatly diminished atmospheric pressure, as in high elevations or in caissions, the inhalations of irritating vapor and gases, vicarious menstruation, acute exanthemata, fibrous bronchitis, pneumonia, tuberculosis, cavities, metastatic abscess, thrombosis and embolism, ulcerative destruction of excavation involving new found vessel, aneurism of systemic circulation, high temperature, very hot or cold air, axe-grinders, stone-cutters, coal-miner; hydatide (1) from congestion; (2) rupture and open-

ing of blood-vessels. Phthisical constitutional.—(1) Susceptibility to external influence; (2) indolence in the repair of structural destruction—beer drinkers.

Location.—(1) Extra-pulmonic, *i. e.* (a) cardiac disease; (b) hysterical passion; (c) great emotion; (d) extraordinary exertion. (2) Intra-pulmonic or respiratory system, obstruction to the circulation through pulmonary capillaries, tubercles, emphysema, pul. cirrhosis, cancer, benign tumor.

Source.—It may occur from (1) cavity, (2) from aneurism, (3) from ulceration, (4) from diaporesis or hexis, (5) from rupture of capillary wall, and (6) from granulations of cavity, and may be due to:

(1) Alteration of the circulation of the lungs.

(2) Disease of the vascular walls.

(3) Alterations of the blood.

Description.—The amount varies from one to two drachms to as many pints. We consider four to six ounces of blood expectorated in as many hours as a free hemorrhage; one half ounce in as many hours moderate; and when a drachm or less quantity trifling. Clinically in consumption we classify as follows: First stage, one drachm or more; Second stage, the bleeding is urgent and amounts to six ounces; Third stage, hemorrhage is rare in last stage of phthisis. Brinton and others have noted its comparative rarity. When hemorrhage occurs it is profuse and exhausting, and is from (1) ulceration of vessel, or (2) rupture of vessel.

Significance.—Dr. C. J. B. Williams asserts that in ninety-nine per cent the cause of hemoptysis, *i. e.* hemorrhage of one drachm or upwards, is pulmonary tubercles. This is presumptive, as Dr. Ware showed sixteen per cent spat blood, and had no subsequent phthisical sign. There may have been a tendency to phthisis, but from prophylactic measures it did not become developed is probably true of many, although not all those cases. It draws early attention to the disease, and thereby does good.

Duration.—Blood may be expectorated

for several hours or a few days. As a rule, hemoptysis occurs in from twenty-four to seventy-two hours after the occurrence of embolism. It may occur thirty to fifty times, and extend over a period of five years. At Trinidad ten per cent of patients die of hemoptysis by losing fifteen to seventy or eighty ounces of blood, and the duration of life is from five to fifteen minutes.

Morbid Anatomy and Pathology.—The two prominent causes of bronchial hemorrhage are, first, over-distension of capillaries of bronchial mucous membrane; second, weakness of capillary walls of bronchial mucous membrane.

I. BRONCHIAL HEMORRHAGE.—The bronchi contains a larger or smaller amount of blood, either fluid or coagulated, fresh or old. The blood reaches alveoli by gravitation, and microscopical examination shows that even it penetrates the alveolar tissues. The mucous membrane of the bronchi is often swollen, softened, friable, injected and reddened, or anemic and pale from its loss of blood. The lungs are heavier and more resisting, and may not collapse when thorax is opened, on account of obstruction to bronchi by extra-visated blood. If autopsy occur days after the hemorrhage, changed coagular may be found in bronchi, bronchioles, and alveoli. The remains of blood are found in hard nodules frequently, deeply pigmented, but not always. They are mostly found at the apex, superior, and middle part of upper lobe, the middle axillary region, between the third and fifth rib close to the pleura, the anterior inferior border, and the middle part of the base corresponding to the summit of the arch of the diaphragm.

When from capillaries the lungs contain blood-red or blackish-red, later brownish-red spots, which are firm, non-aerated, but often surrounded by dilated and emphysematous portions of lung. The transverse sections of these spots show a slightly granular, and on microscopic examination red-

blood globules are found in alveoli and infundibular spots. The epithelium of the alveoli is not unfrequently swollen, granular, and partly desquamated; after a time the unabsorbed red-blood globules undergo shrinking and granular degeneration; blood pigment in the form of needles, more rarely in plates, is deposited in alveoli and infundibular septa. Generally the extravasated blood is reabsorbed, and mucous membrane looks natural and the seat of hemorrhage is not found.

II HEMORRHAGE FROM A CAVITY.—Pulmonary cavities into which hemorrhage has occurred contain a bloody, slightly frothy liquid, which is easily washed away. It may come from (1) irregular bands of connective tissue stretched across the interior with new vessels; (2) aneurism, whose sacs vary in size from that of a pea to that of a large unshelled walnut. Strain is the principle cause of aneurism here as elsewhere. There are two sources of strain, on pulmonary vessels, in the cases in which this form of hemoptysis most often occurs: First, there is heightened blood pressure in the pulmonary circulation; and secondly, there is local loss of support on that side of the vessel which becomes partially exposed in a cavity; third, from ulceration of vessels in walls of cavities, or fourthly, varicosities.

III. HEMORRHAGE FROM CARDIAC DISEASE.—If examined soon after hemorrhage, the anatomical changes are similar to those of bronchial hemorrhage. The changes of pigment induration are present in stenosis and insufficiency of mitral valve, and stenosis of the aortic valve. The lesion consists in (1) dilatation of capillaries; (2) thickening of the walls of the air cells; (3) increase of pigment; (4) an accumulation of large cells in alveoli as in low grade of catarrhal pneumonia.

Infarctions project above surrounding parenchyma, and are wedge-shaped, with base directed towards surface of lung, apex towards the hilus. These nodules are firm and of dark-red color. The lung tissue

around them is hyperemic. Minute examination shows the alveoli, bronchi, and blood-vessels in these nodules to be filled with blood globules. They may cause death by their size and number, or inflammation they excite. The blood globules may break down, and may become fluid, or partly absorbed, partly coughed up, and partly changed into pigment.

IV. PNEUMORRHAGIA. — (Apoplexy differs.)—The lung tissue is torn and infiltrated with blood which may be either fluid or clotted. If situated near surface of lung the pleura may be lacerated. Generally the cavity made in the lung tissue by the extravasation is of considerable size, and the coagulated or semi-coagulated blood in this cavity has all the characteristics of a blood-clot.

Symptoms.—(1) Premonitory; (2) Invasion; (3) Sequellæ.

I. Premonitory symptoms are frequently absent in hemoptysis, especially if from traumatism, to rupture of aneurism, or incipient phthisis, *i. e.* lifting, running, etc.

Prodroma are (*a*) lassitude; (*b*) headache; (*c*) chilliness of the skin; (*d*) alternating paleness and flushing of the skin; (*e*) palpitation of heart; (*f*) accelerated pulse; (*g*) sensation of weight, and tension, and heat, and itching over chest; (*h*) dyspnea; (*i*) anxiety precordia; (*j*) epistaxis; (*k*) dry, hacking cough; (*l*) cerebral congestion; (*m*) throbbing of carotids; (*n*) incapacity for exertion; (*o*) trembling; (*p*) dizziness.

II. Invasion begins in one of three ways; after patient feels (1) warmth beneath the sternum; (2) titillation of fauces by liquid; (3) a strange, saltish or sweetish, taste in mouth. Again, on hawking, blood is spit; and secondly, others feel blood rush to the head, and thirdly, others experience oppression of chest. Paroxysms of cough lead to expulsion of fluid, arterial, alkaline blood frothy from admixture of air and often mingled with pus, or muco-pus. The spr. gr. of coagulated blood is low, on account of the air it contains. Blood casts

of bronchi may be expectorated. Great anxiety, cold sweats, pulse is quick and full. The average attack of initial hemoptysis results in the loss of one or two ounces of blood. The extremes are from one drachm to several pints, and the time may vary from a few minutes to twenty-four hours. Bleeding occurs most frequently in second stage of phthisis. In sputum tinged with blood, the red corpuscles are arranged in groups, corresponding to the dots and streaks of blood. The narrow edges of the red corpuscles are in contact with one another, not the broad surface.

In the purely bloody sputum, the corpuscles are arranged in columns. In bloody sputa, and that mixed with blood, the red cells remain in normal shape for some time. But in putrid sputa they are destroyed rapidly. Traces of hemorrhages can be seen for weeks with the microscope. Occasionally hemorrhage may prolong the first stage. Therefore it is beneficial, as patients live longer with it.

When due to aneurism the blood gushes out of the mouth, and is red and arterial. It spurts in jets, and patient rarely survives. Even if blood is in small quantity, the pulse frequent and tense, the face is red, and burning. Oftener, especially if hemoptysis is copious, the patient becomes weak, the face covered with sweat, the pulse small and thready, and faintness, dimness of vision, and ringing in ears. Temperature 102° – 3° Fahrenheit. If amount of blood lost is large we will have shortness of breath, beating of heart, ringing in ears, spots before the eyes, fatigue upon the slightest exertion, slight attacks of fainting, urgent thirst, nausea, twitching of muscles.

Physical Signs.—There may be none in slight hemorrhage, or a few large and small moist bubbling rales. If alveoli are filled with blood we may have fine crepitant rales. Dullness can only be expected if the part filled with blood is from four to six cm. in circumference, and two cm. in thickness. If a large area we observe signs of infiltra-

tion, viz.: Vocal fremitus is increased, dullness, bronchial breathing. If due to incipient phthisis, we have (1) deficient expansion; (2) diminished resources; (3) feebleness of respiratory murmur or slight broncho-vesicular, and the large and small moist rales, and you are certain you have located the hemorrhage. The symptoms above are due to (1) idiopathic, or (2) congestive hemoptysis. In (3) ulcerative hemoptysis we have (1) fever; (2) hectic; (3) debility; (4) purulent expectoration; and (5) physical signs. (IV) In excavative hemoptysis, (1) cavernous cough; (2) cavernous or amphoric respiration; (3) cracked-pot resonance. (V) Extra pulmonary, *i. e.* cardiac disease, and infraction; (a) dyspnea; (b) cardiac disturbance; (c) cough; (d) shock.

III. Sequellæ.—If recovery is not a hasty one, it is frequently followed by more or less febrile excitement, the temperature increasing to 102°, the pulse frequent and feeble. The patient grows weaker and paler, with loss of appetite, a hacking cough, which is almost constant, and is accompanied by a tenacious, scanty, muco-purulent expectoration. The respiration is hurried, and dyspnea is marked on exertion. The hemorrhage is followed by catarrhal pneumonia. Again, in other cases, the temperature may be 103–5° Fahrenheit, the pulse 100–120, followed by emaciation, night sweats, lancinating pains in sides, etc.

Diagnosis.—It is to be distinguished from (1) epistaxis; (2) laryngeal hemorrhage; and (3) hematemeses usually. With laryngeal hemorrhage we have (a) hoarseness; (b) dyspnoea; (c) croupy cough; (d) and laryngoscopic examination shows mucous membrane is swollen, and red or bloody; (e) expectoration of blood is usually under a drachm. From epistaxis we distinguish by (1) feeling of fullness in frontal region; (2) tickling of the nostrils; (3) blood is coagulated and dark; (4) not followed by cough; (5) blood can be detected in nostrils.

Close attention to the following will ena-

ble one to diagnosticate hemoptysis from hematemeses:

HEMATEMESIS.	HEMOPTYSIS.
Preceded by nausea.	Preceded by dyspnoea.
Blood is ejected by vomiting.	Blood is ejected by coughing.
Blood is dark, not frothy.	Blood is bright-red and sometimes frothy.
Blood is mixed with food.	Blood is mixed with sputa.
Feeling of warmth in œsophagus.	Trickling of blood behind the sternum.
Feeling of distension in stomach.	Sense of constriction of chest.
Is repeated soon.	Attack is not repeated soon.
Mouth is open when blood comes up.	Mouth is shut with blood in it.
Age usually forty to fifty.	Age from eighteen to twenty-nine.
Previous and existing symptoms of gastritis, catarrh, ulcer, or hepatic cirrhosis.	Previous and existing symptoms of phthisis, cardiac disease, physical signs.
Discharge of blood from the bowels, <i>i. e.</i> stools black and tarry.	
Character of blood (a) color; (b) æration; (c) general aspect; (d) reaction; (e) microscopic appearance—red corpuscles are altered in shape, or destroyed, and pigment granules are abundant.	Character of blood (a) red corpuscles, often normal in microscopic appearance; (b) bacilli Kochi are present
Is of sour odor.	Sweetish or salty taste.
Spectroscopic signs.	

Prognosis, on account of tubercular complication is serious, although immediate danger is usually not great. It is present in seventy-five per cent of tubercle. The prognosis varies with (1) quantity; (2) source and cause; (3) our power of checking hemorrhage, and its recurrence; (4) previous condition of system, and the effects of the loss of blood. Oftener hemoptysis signifies phthisis, and statistics show it to be beneficial. It relieves (1) the congestion; (2) it washes out bacilli. The following paradox is not subscribed to by me: In the first stage (1) it indicates degree of congestion; (2) amount of congestion indicates degree of irritation; and (3) amount of irritation indicates degree of tubercular deposit. For this reason recurring hemorrhage augers unfavorable prognosis, because of the loss of blood in (1) anemic persons; (2) with fever and no assimilation. The answer to the foregoing is that the anemia can be successfully treated. The bronchitis, or broncho-pneumonia, resolves promptly very often. In first and second stage it is more frequent in men than women, which may be fairly explained by the great bodily

labor and increased tax upon pulmonary circulation in the former than in the later. In pyemia, cancer, abscess, gangrene, purpura, scorbutus, etc., prognosis is unfavorable. High temperature encourages hemorrhage. All under thirty with hereditary phthisis have hemoptysis. About one per cent of patients die of hemoptysis. Death occurs from (1) fainting; (2) from quantity of blood lost; (3) weakness of the heart; (4) valvular disease. Hemorrhage in cardiac disease is unfavorable as it shows inadequacy of composition.

Treatment is (1) diatetic; and (2) medicinal, sthenic, and asthenic; and (3) climatic. As regards time, (1) present time; (2) prophylactic; and (3) squellæ.

I. Present treatment.—The patient should be quieted, and be told the bleeding is beneficial, and that there is more to come. Absolute rest should be enjoined, the semi-recumbent posture assumed, coughing must be restrained, conversation prohibited, keep the room cool. Let patient eat pounded ice to contract the vessels and diminish cough. Dry-cupping, mustard poultice, hot bricks to feet, and if hyperemia use *Tr. veratrum viride* g tt iii every three hours, or *Tr. gelsemium* g tt iii every two hours. If due to congestion from cardiac lesion give *Pulv. digitalis* gr. i, quinine sulph. gr. iii, in pill every three hours. *Ipecac* may be used to equalize the circulation by nauseating. *Acetate of lead* is excellent except (1) it irritates the stomach, and (2) it poisons the nervous system. It is one of the best to (1) seal the ruptured vessel, and (2) to depress the heart. *R plumbi acetatis* ʒii, *ergotini* gr. xxx, *Tr. opii camph.* ʒii, *M. S.* ʒi, every three hours. *Spts. turpentine* g tt xx in capsules; objection is nausea. *Ergot*, use in full doses until numbness of fingers; the taste is objectionable. *Sclerotic acid*, the active principle of ergot of rye is an amorphous, cinnamon-brown substance, readily soluble in water. Good ergot contains four or five per cent of it in combination with bases. It retains its strength indefinitely if

kept in a dry place and undissolved. It causes a “sharp biting” pain at seat of puncture, but it causes no inflammation. Dose gr, $\frac{1}{4}$ – $\frac{1}{2}$ a five-per-cent solution injected in the neck or arm.

In asthenic or atonic cases use *ac. gallici* in gr. xx every twenty to forty minutes, *i. e.* it colors the sputa of a greenish tint, *i. e.* styptic. *Digitalis* (1) tones the heart; (2) contracts the capillaries; it is indicated in intemperance. *Opium*—to restrain but not to prohibit cough; to diminish but not to abolish the sensibility of the bronchial mucous membrane; to quiet patient and allay excitement. *Copper sulphate* in gr. one half every four hours in continuous pulmonary hemorrhage. It is (1) tonic and (2) astringent to vessels. If cavity exists use counter irritant of *emplastrum cantharides*, or strong ammonia poured in a thimble packed with cotton and applied. Also, *ext. hamamelis* dist. ʒss. every half hour. In vicarious hemoptysis *ferri et am. cit. in vini oportense*. *R Alum* ʒss. *Ac. sulph. aromat.* ʒss., *Syr. simplicis* ʒii., *M. S.* teaspoonful every hour. When malarial, use quinine and iron. The blister is used to cause inflammation of pleura, and adhesions to form, which will prevent (1) perforation, (2) lessen motion of lungs. Atomization with *Monse's Sol.* 1 pt. to 30, *alum* 1 pt. to 16 or 1 to 20, especially in free hemorrhage.

Prophylactic treatment.—Treat the diseases that cause it, and prohibit it recurring. Prohibit exertion in cardiac disease, but exercise is shown by experience to be beneficial; tobacco, tea, and coffee had better be omitted. If palpitation, use *Br. potash*; regulate the bowels. Coughing as a habit should be restricted. Mental and physical excitement enjoined. Highly digestible food, *i. e.* cold milk one half pint every three hours. *Fowler's sol.* to improve connective tissue growth, which is due to action on the cells themselves. Pneumatic differentiation with local medication will be of service in the future.

Sequellæ.—(1) Elevation of temperature;

(2) accelerated pulse; (3) constitutional disturbance; (4) lancinating pains in thorax. Use ergot and quinia, and hot flaxseed poultice to chest. For bronchitis use ammonium carbonate; nutritious diet. Asthenia is treated with ammonia and brandy, beef tea, eggnog, rubefacients to chest. Meet diarrhea with opiates and astringents. Use chloral for insomnia. Draw off urine with catheter. Anemia, fresh air with moderate exercise, regulated nutritious diet, digestive tonics.

Climate.—First a sedative climate; their favorable influence on the system is anti-irritative and anti-febrile; they weaken the activity of oxidizing processes and promote formation of fat. Have part winter in Cuba, and proceed to Florida, South Carolina, or Georgia at the end of April, and remain till the end of June.

ENTERO-COLITIS.

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CAUSES. — 1. Improper feeding. 2. Chilling of the surface. 3. The use of contaminated water and the breathing of foul air. 4. The last causes, operating in our hot,

dry summers, where the heat and drought combine to intensify the action of the above causes. 5. Teething in summer, as an *indirect* cause.

We shall discuss these causes separately.

FIRST—IMPROPER

FEEDING.

This is a prolific source of all the forms of diarrhea in children.

Both quantity and quality are to be regarded here. Perhaps excess in quantity is the commonest mistake, an infant four or five months of age being often supplied with an amount of food far in excess of its powers of digestion, the result being fermentation, instead of digestion, and this irritating mass, in passing over the sensitive mucous membrane of the alimentary canal inevitably produces some form

of diarrhea; it may be at first perhaps non-inflammatory, but unless arrested soon merges into the inflammatory form now under consideration. As regards the quality, again, the food for bottle-fed infants is often ignorantly, or carelessly, prepared in the morning to last the child all day, containing, as it always does, milk and sweetened farinaceous articles, it is in a state of fermentation in a few hours, rendering it totally unfit for the child, invariably producing irritation and diarrhea.

CHILLING OF THE SURFACE.

Infants are exceedingly sensitive to sudden changes of temperature. This is especially so in weakly, rickety, and delicate children, who perspire easily. Arms and legs, often the neck and shoulders, are frequently left bare after the first long clothes are discarded, and even when the little fellow is indulged by his mother in the luxury of his first pair of trousers they are barbarously cut off at the knee, in the fashion of our grandfathers, and the little red legs left unprotected from the cold spells which occur so suddenly during every summer.

THE USE OF IMPURE AIR AND WATER.

While severe inflammatory diarrhea is common in large cities, where the odor of putrifying animal and vegetable matters prevail, smaller towns are not exempt from these causes, where the coal-oil lamp is burned all night, the flame turned down low, rendering combustion incomplete, fouling the air of the sleeping apartment with fuliginous particles, windows and doors tightly secured, foul baby napkins in a pile in a corner, or "in-soak" in a pan or tub, chamber utensils allowed to remain under the bed unemptied, till their nauseous odor pervades the entire atmosphere of the room. These, and other like causes, furnish an ample quantity and quality of foul air to produce disease. Contaminated drinking water, too, from wells rendered impure by

the running in, or seeping in, of surface water, and cisterns cracked and leaky, are fruitful sources of contaminated water. It is indeed a well observed fact that there is most frequently a well-marked *septic* element in this form of diarrhea.

PATHOLOGY.

The post-mortem appearances seldom show such general or widely diffused lesions as the term entero-colitis would seem to imply; on the contrary the catarrh of the intestine is usually very partial, limited in fact to the *large* intestine and jejunum. The solitary glands, Peyer's patches, and sometimes the mesenteric glands are swollen, the two former so as to project above the surface.

A thick layer of tenacious mucus covers the lining membrane at the inflamed points; frequently the membrane itself is reddened and thickened. Patches of false membrane are sometimes found in the large intestine, in chronic cases. In protracted cases of unusual severity multiple ulcerations are often found about the sigmoid flexure of the large intestine, and especially in the lower part of the ilium. Frequently intussusceptions are found in the small intestine, presumably occurring during the last hours of life, as the invaginated portions can easily be drawn out and show no signs of congestion or tumefaction, and finally, records of necropsies after death from severe cases of the disease show fatty liver, and also evidences of parenchymatous nephritis.

SYMPTOMS.

There is a marked difference, as would be inferred, in the symptoms of acute entero-colitis in children after and before the completion of the first dentition. The depression resulting from the severe and frequent purging appears much earlier in infancy than in older children. Again, it is in these infant cases, principally, that the dangerous complication of parenchymatous nephritis occurs. In our infant cases we generally find it commencing

very much as simple non-inflammatory, or crapulous diarrhea. The discharges containing at first undigested curdled milk, mingled with greenish matter with an acid, sour, and very offensive odor. The infant gives evidence, too, of pain and griping, possibly nausea and vomiting occur, the matters thrown up possessing the same sour odor, but not fecal. The operations become more and more frequent, till they assume a thin and watery appearance, staining the napkin a green or yellowish-green color. If the lower bowel is unaffected, the motions do not contain mucus, *apparently*, and they are passed without tenesmus. Northnagel, of Jena, regards mucus passed with the stools in a condition invisible to the unassisted eye, but visible under the microscope, to indicate a catarrh of the small intestine.

The general symptoms soon become very severe. Emaciation and debility advance rapidly. The eye becomes dull and expressionless, and sinks back into the orbit; the face assumes a pale, cadaveric hue, excoriation with erythematous redness invades the buttocks and inner sides of the thighs. The urine is decreased greatly, and thirst is urgent. The tongue is generally red, but clean, unless the stomach is involved in the catarrh, and then vomiting becomes a distressing and troublesome symptom, and the tongue is coated. The pulse is weak and frequent. Sometimes, when the discharges have been rapid and watery, the temperature is sub-normal. Usually fever attends and the range is from 102 to 103.5°. Respiration is quick and shallow. A remarkable fact connected with the progress of the disease is, that sometimes when the extremities are cool, and the medical attendant flatters himself that there is no fever, he is astonished on finding the thermometer placed in the rectum to indicate *a temper-

*EUSTACE SMITH—Diseases of Children. 1884. Page 631: "A little boy, aged nine months, had suffered from diarrhea for a week, and was occasionally sick. When seen the motions were light-colored and offensive. His temperature in the rectum was 103.6, pulse 176, respiration 64. On the fol-

ature of 106° or 107° F., and these cases nearly always prove promptly fatal. This most often occurs when the discharges have been very copious for a day or two and the system is profoundly depressed.

The symptoms become dysenteric when the descending colon and rectum are implicated in the disease. It is possible that this form of entero-colitis has been mistaken for dysentery, especially as the discharges are apparently attended with tormina and tenesmus, but the character of the motions differ in important particulars from the discharges of true dysentery. Being attended with violent straining, the bowel is sometimes prolapsed, and some of the smaller vessels ruptured, and hence there are streaks or drops of pure red blood in the stools resembling dysenteric operations, but the blood is separate from the mucus or slime and not intimately mixed with it, forming that red jelly-like mass so peculiar to dysentery. If parenchymatous nephritis supervene, symptoms attracting the attention of the medical attendant to the kidneys are very soon superadded to the general depression, already bordering on collapse. The urine becomes scanty and albuminous, the tongue becomes dry, the skin over the belly is cool, dry, and inelastic, lying in loose wrinkles and folds. The lower extremities swell and become œdematous. The sediment from the urine contains epithelium and hyaline casts. The hydrocephalic cry or shriek adds to the distress and gravity of the case. Convulsions may occur; skin hot, pulse rapid; the child is dull and stupid, and ever and anon that sudden, startling, and unnatural cry rings out like a death-knell. The circulation through the brain is sluggish, and the condition called spurious hydrocephalus is present.

lowing morning his temperature was 103 , but in the evening it rose to 107.8 , and the child died a few hours afterwards. Just before death the thermometer marked 106 .

Another infant, ten months old, had diarrhea about two weeks, the bowels acting five, six, or seven times a day. At this time the temperature was normal. It then began to rise, and for a few days varied between 101 and 102 . Then it rose rapidly to 107.4 , and the child died with all the signs of collapse."

The fontanelle is depressed, eye-lids half closed, pupils stationary, and perhaps unequally dilated; temperature subnormal, pulse rapid, often intermittent, breathing irregular, jerky, and sighing, stools small, watery, and greenish. Death generally occurs in twenty-four hours, unless the *most energetic stimulation*, both externally and internally, be assiduously used. Pathologists maintain that spurious hydrocephalus is often caused by the occurrence of thrombosis in the cerebral sinuses. One distinguished writer suggests that it may sometimes be due to uremic poisoning from deficient renal secretion. After the period of infancy, while there may be longer tolerance of the exhausting effects of inflammatory diarrhea, if the purging and vomiting are severe, acute emaciation soon produces that peculiar pinched and contracted countenance and distressed appearance so characteristic of severe bowel troubles. As in younger children, the pain in the abdomen is not marked, except when the colon and rectum are implicated, and then griping and straining are very distressing and severe, and symptoms of collapse occur much earlier. The temperature is usually moderate, unless malaria complicate the case, and then the thermometer may mark 104 or 105° during the evening, and descend again towards morning to almost normal. In such cases occurring in very hot weather, the stools are yellow or green from excessive secretion of bile. Usually in these cases the dejections are dark, watery, and offensive, urine scant and high colored. Northnagel, a German writer, states that the *indican* secretion is in excess in the urine when the catarrh affects the small intestine. One notable and important circumstance in these *older* cases of the disease is the exemption from spurious hydrocephalus and parenchymatous nephritis which seldom occur in children of two years of age and upward.

The chronic form of entero-colitis is an insidious and dangerous disease, and if not treated early and most judiciously very often

ends fatally. It may succeed the acute form, but often occurs insidiously, and may be said to be chronic from the first, as the symptoms are not *urgent*, but progressive.

The child is seen to be pale and delicate, but as its appetite is good, in fact preternaturally keen, no anxiety is felt about it. The bowels are moved perhaps three or four times a day, but the stools on casual observation do not seem *very* unnatural; after a few days, or a week, the mother is perhaps struck with the unusually large quantity of the discharges, which are now becoming thin, dark, and offensive, or pasty, and mixed with mucus; the child daily losing flesh, becoming more pale and delicate, refuses to use its limbs and run around. The parents use simple domestic treatment, the family physician is not called, and this state of things goes on for several weeks. The discharges become lenteric, the bowels run off for a day or two then resume the pasty, mucus condition again, alternating thus till the diarrhea at last becomes the habitual condition, and emaciation and debility rapidly increasing produce an aged appearance quite unnatural in a child.

PROGNOSIS.

Nearly all the cases of mild summer diarrhea occurring in this city and the surrounding country recover with domestic treatment alone, where cleanliness is observed, diet regulated, and drugging is abstained from. The simple purgative as castor oil, or the same with spiced syr. rhubarb, so generally used by mothers and nurses, sufficing to carry off the crude or fermented alimentary material which has set up the diarrheic irritation, and all is well again. But what a contrast there is when one of these simple little cases is treated by a harsh purgative—calomel, it may be; how soon do we see the terrible contrast presented—instead of the relief desired, the incipient catarrhal condition is converted into an inflammatory one, violent vomiting is added to the exhaustive diarrhea, and in a few days the little one

dies, the victim of gastro-colic inflammation produced by irritant poisoning. In intermediate cases, which prove rebellious to the above mild measures, the judicious physician finds still the simple remedies, selected with a proper discrimination and adaptation to the circumstances and varying conditions of each case, quite effective, and generally successful in effecting a cure. In good hygienic conditions, with the services of a skillful and obedient nurse, even the dangerous and rapidly fatal cholera infantum, if the dangerous symptoms are promptly met by the use of such measures and remedies the improved and enlightened pharmacy and therapeutics of the present day have placed in our reach, the mortality from this grave disease *can be*, and in fact *is* distinctly lessened. It is indeed a pleasure to notice the decreasing mortality in this and other grave diseases of childhood since the important subjects of dietetics and hygiene have engaged the attention and study of some of the ablest scientific minds of the age, the results of whose laborious experience are becoming more generally disseminated among the advanced and progressive members of our profession, retiring many of the erroneous ideas and death-dealing drugs and chemicals of the “dark ages” of a past medical era to a well-merited obscurity and oblivion. We have also this encouraging fact before us, that where we have *one* obstinate “old fogey,” who yet wilfully shuts his eyes to the brilliant light of improved and progressive medicine, and bats and blinks his optics like the owl, having the appearance, the shadow only, of wisdom without the substance, who still insists on “massacring the innocents” with calomel, crab’s eyes, salts, and tartar emetic, we have twenty progressive, enlightened, well-posted physicians to counteract his baleful example.

Again, in the prognosis of inflammatory diarrhea much depends on the constitutional vitality, the feebleness or robustness of the patient, and the state of health at the time of the attack. Inflammatory diarrhea is a

very fatal disease in weakly, scrofulous, bottle-fed children. Cases complicated with parenchymatous nephritis and spurious hydrocephalus nearly always end fatally. Cases whose rectal temperature suddenly runs up 106° or 107° , or more, *all* die, and that promptly. At all ages high grades of temperature show corresponding gravity of the disease. Great *frequency* of stools, *violent* vomiting, early collapse, marked drowsiness or stupor, convulsions, or other brain trouble, *sudden rise* of temperature, are all signs of grave and serious import. On the contrary, quick response of the system to treatment judiciously selected and employed, and above all decline of the fever to normal, even if the diarrhea be still rather copious, warrant the expectation of improvement in a short time. Of course good hygienic surroundings in this, as in all other diseases, afford us the largest measure of success in our treatment, and this will be again referred to under the head of treatment. In children under two years of age the prognosis must be guarded, as many of these cases prove fatal in spite of the most careful and judicious management, and more especially if ulceration have occurred and the diarrhea is persistent and obstinate.

TREATMENT.

“An ounce of prevention is worth a pound of cure,” says the old proverb, and it is peculiarly appropos here. First, then, comes that good old medical and surgical maxim, which stands as the corner-stone of the healing art—

1. *Remove the Cause.*—Transport the little ones from the foul air of the city to the country, where they can enjoy the salubrious breezes, the songs of the birds, and the pure healthy *milk* that reddens the bronze cheek of the rollicking farmer's boy.

2. Bathing, with lively friction of the skin, cleanliness, which is said to be “next to Godliness,” must be inculcated and *practiced*. Accustom the child to the contact of *pleasantly* cool water in hot weather,

till he will laugh and carrol and splash in the sparkling liquid like a joyous little naiad.

3. *Proper* food, nutritious and pure, in reasonable quantity, and at judicious intervals. No stuffing, no starving, but observe a just medium only. Healthy breast-milk for the first year or eighteen months; milk principally after weaning, peptonized for weak, delicate children, and after the teeth are all cut to be gradually accustomed to ordinary food.

4. Pure fresh water is as necessary for a healthy infant as for the adult, and even very young infants take it with avidity, and show that they are all the better for it. Pure wholesome air, free from the taint and odor of putrefying animal and vegetable matter is absolutely required. When old enough let children have free exercise in the open air, or if too young to run and jump and play, take them out in a baby-carriage, or otherwise, morning and evening in summer, and even in winter, sufficiently protected with warm clothing. The chemico-vital influence of sun-light should not be forgotten or ignored in summer or in winter, being as necessary to the growing child as to the growing plant.

5. The normal state of a young and healthy infant during the first few months of its life is to spend at least two thirds of its time in *sleep*, and if an infant is fretful, restless, and sleepless, be sure there is something wrong. The *cause* of it should be diligently searched for, found, and removed rather than resort to paragoric, catnip, and soothing syrup. “Tired nature's sweet restorer, balmy sleep”—is a *sin qua non* for all infants.

Prophylactic measures, as recommended in previous pages, failing or being neglected, and the disease occurring, we are called upon to relieve the distressing symptoms, and modify the progress of the disorder. The first and most important indication is the regulation and administration of a proper *diet*, for upon *this* depends the success or failure of *all* other remedial means used in

the way of medicines. The small and large intestines being presumed to be in a state of inflammation as to the pyrexia and character of the operations, and other physical signs, indicate the functions of assimilation and digestion are seriously impaired, or are almost abolished, and the small amount of digestive vitality remaining must be carefully fostered and sustained. The diet selected must not be such as is capable of fermenting and producing further irritation by acidity, yet must be nourishing and of easy digestion. If the patient be an infant at the breast, and the mother healthy, her milk containing no colostrum, the child should be confined to this alone; but if the stomach is irritable, and the milk is frequently vomited, we must try a restriction of the quantity given, and allowing sufficient interval for assimilation before again applying it to the breast. Cow's milk, although proper for *healthy* infants, is not admissible here. A well-prepared chicken tea, seasoned and diluted with wine whey, or whey and cream, will suit and agree well with older or weaned children. Mellen's food serves a good purpose in many cases. Quantity must also be regarded and carefully regulated to the digestive powers.

Stimulents are exceedingly useful if signs of weakness or exhaustion appear, but they must be selected and administered with great care and judgement. Common whisky obtained from the bar-rooms and liquor dealers will prove more surely fatal to infants than the diarrhea. The vile artificial mixtures sold as old port and sherry are equally injurious. The vin. mariani, if to be had, is a great boon in these cases. Old cogniac brandy, when it can be obtained *pure*, will assist in saving the life of many a child suffering with this disease. Brandy and egg mixture forms a valuable resource in these cases when purging is severe and exhausting and fever high. High temperature in these cases so far from contraindicating stimulents emphasize the urgency for them, for it is precisely in these cases that symp-

toms of collapse and exhaustion occur the earliest. External stimulents, as the mustard-bath and hot bottles, are indicated in cases where early failure of strength is marked, and in addition an important measure is to secure cotton batting over the abdomen with a flannel roller, and let it remain till the child is better. Keep the air of the room pure and well ventilated, all excreta or soiled napkins to be immediately removed out of the room. If the temperature is over 103° in the rectum, a tepid bath should be given after every stool. This has a most important effect in reducing both the temperature and the number of actions.

A stimulent should be given before bathing, and the child should be placed between blankets after the bath, and a warm brick or iron kept at the feet. These preliminary measures, and also as accompanying the treatment with the medicines required, are essential to the success of the treatment with the latter. In the initiatory stage of many, or most cases of this disease, the early administration of mild laxative containing castor oil and spiced syrup of rhubarb, with a little soda, will frequently remove at once the bad symptoms, change the color and character of the actions, and if followed by a mixture of bismuth, aromatic chalk powder with paragoric or opium, will often arrest the disease. The following is a favorite formula with the writer, and proved very successful during the last summer. For children from one to two years of age:

R. Bismuthi subnitratis, } aa . ʒ ij;
 Cretæ preparatæ }
 Pepsini saccharati ʒ j;
 Gumi acaciæ, ʒ zj;
 Glycerini, ʒ j;
 Tr. kino, ʒ ss;
 Aq. cinnam. } aa ʒ iss;
 Aq. Puræ, }
 Tr. opii. deodoratæ Gtt xx.

M. S. Tablespoonful every three or four hours.
 The proportion of tr. opii. to be increased or diminished according to age.

Sulphuric acid, gallic acid, tannic acid, and acetate of lead, I only mention to say they are more harmful than beneficial. The best of the list of astringents are kino,

hæmatoxylon, opium, rhatary, catechu, etc. Only one of this list is available, or of much service when much fever attends, and that is kino. As a rule none of the astringents are effective if high fever exist. In cases of violent vomiting I have seen the best results follow the administration of the following R given ice cold:

R. Vini. ipecac, 3j;
Tr. nucis vom Gtt x;
Tr. opii. deodor., Gtt x.
M. Shake well.

S. Give five drops after every act of vomiting, and apply a belladonna plaster to epigastrium. When the colon and rectum are inflamed and tormina and tenesmus are distressing, an oleaginous mixture containing gum acacia, glycerine, ol. resini and tr. opii. deodor. may be given every hour till it acts and changes the color and character of the stools, and then follow by injections of, say, ipecac, five grs., tr. opii. three or four drops, according to age, in starch made thin, and give after each action till checked.

The convalescence from this disease must be carefully watched. The digestive powers are enfeebled and much impaired, and therefore nature is to be assisted by the exhibition of tonics combined with pepsin and pancreatine. I am aware of the theory that pepsin digests only in an acid solution, and that pancreatine can only emulsify fats in an alkaline medium, but the *fact* remains that milk partly digested by the action of pancreatine and pepsin is certainly more easily digested, and is equally, if not more nourishing to a delicate convalescent infant than milk not so peptonized. The following R has often given great satisfaction as a tonic and digestive in these cases. For three years of age:

R. Acidi nitro. mur. dil., Mij;
Quinidiæ sulph., Grs. ss;
Aquæ destil., 3ij;
Pepsini porci Grs. iij;
Liq. strichniæ, Gtt $\frac{1}{4}$.

M. S. Give the above before each meal three times a day. A raw-meat diet is highly commended in obstinate cases. In

the rapid, choleraic, and collapsing forms, hypodermic use of morphia and atropia followed by energetic stimulation often act in a most wonderful manner, sometimes rescuing an infant from the very jaws of death.

TYPHOID FEVER.

BY

DR. H. H. GWINN.

The editor of PROGRESS was visited recently by a very enthusiastic gentleman

anxious to make known a valuable discovery, which it is claimed has stood the test of eight years of experience in the treatment of typhoid fever.

Dr. Gwinn says he has treated in all, including cases in consultation, seventy persons, some when the disease had reached its zenith, without a failure. He is careful about the diagnosis, and when this is clearly made out, he begins the treatment, and continues until convalescence is established. In anticipation of the nocturnal increase of temperature, he makes it a rule to begin with the specific at 2 o'clock P. M. The rule in adult cases is to begin with the following formula:

R. Hydrargyri sub-muriatis, Gr. x;
Pulveris Doveri, }
Potassii chloratis, } aa Gr. iv.
Quininæ sulphatis, }

M. ft. cht. iv.

Sig: Take one at 2, 4, 6, and 8 P. M.

Then darken the room and leave the patient to sleep through the night. In the morning early he gives a tablespoonful of castor oil, and repeats it every hour until the bowels move. In the afternoon he comes again with the powders; and, promptly at 2 o'clock he proceeds as before, following with the oil on the morrow. In certain cases the quinine is increased in quantity, and in others it is omitted.

Dr. Gwinn feels well assured of his ability in this manner to arrest the progress of typhoid fever at any stage; and is charitably disposed, after mature observation, to lay the particulars before the profession. He is now engaged in writing a detailed clinical report for publication.

GENERAL SURGERY.

MECHANISM
OF INDIRECT
FRACTURES OF
THE SKULL.
STUDY OF
CASES.

BY
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A great difficulty confronts at the outset one who tries to discover in how far the study of actual fractures of the skull will bear out any theory in regard to their mechanism which seems plausible. The difficulty depends upon the difference between the known factors in an experiment and the unknown factors in an accident. It is often impossible, in the case of a fracture

of the skull, to ascertain exactly the amount and direction of the force, the point to which it was applied, and the conditions of resistance or evasion of the whole cranial box. This consideration should lead to a modest and reserved fitting of what seem to be facts to any theory. Nevertheless, nothing can be learned by standing still; and we may, if not overconfident, make some advance in knowledge by testing a theory by an observation of what actually takes place. With this object in view, I have examined the published accounts of a very large number of cases of fracture of the skull, and I have collected more than a hundred (119) in which the details seem to me to be sufficient to warrant an approximate estimate as to the conditions under which the fracture occurred, and as to the results produced. I can not go over the records of these cases in detail, but I now show you drawings of all of the fractures, each accompanied by a reference to the source from which I have obtained it, and such verbal explanations as will, I trust, enable you to form some opinion as to the amount of support they can be credited with according to the "bursting theory" which I

have already described and endeavored to explain. In presenting these drawings to your attention, I must warn you against certain sources of error in them. The first depends upon the imperfection of the great majority—I might almost say of all—of the records from which they have been made up; the second depends upon the great difficulty of representing upon a flat surface what may be gathered from a verbal description of so complex and intricate a thing as a fracture of the skull.

In addition to the drawings representing each case of fracture by itself, I show you one in which I have transferred to a single diagram all the fracture lines falling within the base of the skull. I do this to indicate, if it be possible, where fractures most frequently occur, and also to make clear the fact that the parts which Félizet has assumed to have peculiar strength—the petrous bones and the basilar portions of the occipital—seem, on the contrary, to be the very seats of election for fractures of the base.

For convenience of comparison, I have arranged the drawings in classes according to the nature and direction of the violence which produced them. Wherever there seemed to be doubt as to these points I have indicated this fact by a query mark (?). The direction of the violence is indicated, wherever this could be done, by an arrow pointing to the point of impact.

CLASS A. *Fractures Caused by Blows on the Frontal Region.*—Of this class I have only two cases. One caused by a kick from a horse above the right eyebrow, causing a direct fracture here, and an indirect meridional and oblique fracture of the parietal bone of the same side. The other case presents a fracture caused by a blow with the handle of a pitchfork, high up on the frontal region. The fracture is in the base, is meridional, and passes from the right orbital plate, through the sphenoid bone and the basilar process of the occipital, leaping across the foramen magnum, from the back edge of which start two converging fissures

which meet in the cerebellar fossa on the left side, and end above the groove for the lateral sinus.

CLASS A. *Fractures Caused by Falls upon the Frontal Region.*—Of these I have thirteen cases. Twelve present meridional fissures; five of them being directly longitudinal, three of these passing directly through the whole basi-sphenoid bone. Seven are oblique; two of them bifurcated, and one passing through the whole basi-sphenoid bone; one passes from the point of impact to the lower part of the ridge for the straight sinus, after having passed across the middle of the petrous bone and encircled the foramen magnum. One shows a ring fracture, in addition to a meridional fracture from the frontal bone to the junction of the petrous with the basi-sphenoid. One is directly opposite to the point struck, is extensive and bifurcated.

CLASS B. *Fractures Caused by Blows on the Occipital Region.*—Of these I have only two cases. One was caused by a spent ball striking the occiput to the left of the middle line, and shows an independent meridional fracture passing alongside of the internal ridge to near the foramen magnum, then crossing the petrous bone, dividing it transversely to its principal axis, and ending in the foramen spinosum. The other case is a specimen from one of Perrin's experiments, in which the skull was thrown on a stone pavement covered with a layer of India-rubber. There is a separation of the coronal suture, and a prolongation of this as a bifurcated fissure in the right squamous bone. This specimen shows a division at right angles to the meridian, which may be due to an unusually weak union in the coronal suture, or to some peculiarity of the experiment. I have included this specimen among my drawings, because it is diametrically opposed to the bursting theory. But I think an experiment which involves throwing a skull detached from the body can not be considered very reliable in comparison with those in which the skull is fixed.

CLASS B. *Fractures Caused by Falls, Striking upon the Occipital Region.*—Of these I have twenty-one cases. All show meridional fractures. Two of these pass directly through the crest for the lodgement of the straight sinus to the foramen magnum. One passes to the foramen magnum near this crest. Two pass through the whole of one side of the occipital bone, and one splits off a piece of the parietal, and separates the lambdoid suture in part. One divides the frontal bone into halves. Six pass round the foramen magnum on one side, three dividing the petrous bone longitudinally and one transversely. One shows a longitudinal fracture passing across the foramen magnum and dividing the basi-sphenoid bone, as well as a partial ring-fracture. In two the fissure passes meridionally round the side of the head. One shows an independent fissure on each side, in the parietal bones.

CLASS B. *Fractures due to Blows on both the Forehead and Occiput.*—One such case I have found recorded by Herpin, in which there was a succession of bumps on each of these parts. The resulting fracture is a long fissure, passing longitudinally from the internal occipital protuberance to the foramen cæcum, passing round the foramen magnum, very close to it, and dividing the whole of the basi-sphenoid: a beautiful meridional fissure.

CLASS C. *Fractures Caused by Compression in a Longitudinal Direction: Accidental.* Hewett records two cases of this sort. In the first, a man fell on the back of his head, and a piece of timber fell on his forehead. The fissure is independent, and partly meridional. It divides longitudinally the middle of the horizontal plate of the ethmoid bone and the middle of the body of the sphenoid bone, passing then to the right through the greater wing of this bone, and bifurcating before passing in two fissures upon the squamous plate of the temporal bone. In the second, the history is far from clear, but it seems that the fracture was caused by the compression of a cart-wheel

passing across the forehead. The fracture is meridional, and exactly like several in the next class.

CLASS C. *Fractures Caused by Compression in a Longitudinal Direction: Experimental.*—Of these I have nine cases. Six show meridional fissures. One divides the skull from front to back over the vault. Three divide the skull to an equal extent through the base, passing round the foramen magnum. In two there are two independent fissures. In one of these cases one of the two fissures is not meridional. Three of the cases show complicated fissures which may be due more to crushing than to bursting.

CLASS D. *Fractures from Blows on the Parietal Region.*—Of these I have only four cases. All show meridional fissures. Three pass straight down to the apex of the petrous bone, and one passes also up to the vertex.

CLASS D. *Fractures Caused by Falls, Striking on the Parietal Region.*—Of these I have fifteen cases, in all of which I think the fractures may be considered meridional. Four pass along the horizontal equator of the skull. Seven are transverse, three crossing the base from side to side, two going half way across, one involving only the ends of the petrous bone, and one passing across the vault at the back part of the parietal bones, and then passing forward to the base. Four are diagonal, two of them passing across the sella turcica.

CLASS E. *Fractures Caused by Compression in a Transverse Direction: Accidental.* Of these I have five cases. In all, the fractures are transverse and meridional. Two pass across the basi-sphenoid bone and upward on both squamous bones. In one both parietal bones are split independently, the fissures passing down through the petrous bone. In one the coronal suture was separated, and a piece broken out of each parietal, beside an independent fracture of the occipital and petrous bones at the base on one side.

CLASS E. *Fractures Caused by Compres-*

sion in a Transverse Direction: Experimental.—Of these I have five cases. In all, the fissures are transverse and meridional. In four the basi-sphenoid is divided transversely, and in three the fissure involves also the temporal bones. In one case the coronal suture is disarticulated.

CLASS F. *Fractures Caused by Falls, Striking on the Temporo-Frontal Region.*—Of these I have only two cases. In one the fracture is meridional; in the other it is equatorial, and seems to illustrate the shoving of the posterior half of the skull over the anterior half by the impact of the spinal column on the base in an oblique direction.

CLASS G. *Fractures Caused by Compression in a Diagonal Direction: Experimental.* Of these I have five cases. In four the fissures are meridional, two being quite complicated. In one case there is a separation of the posterior inferior angle of the parietal bone, and the dorsum of the sella turcica is broken off.

CLASS H. *Fractures Caused by Blows on the Vertex: Accidental.*—Of these I have six cases. In all, the fractures are meridional; in five they are transverse, and in one longitudinal.

CLASS H. *Fractures Caused by Blows on the Vertex: Experimental.*—Of these I have three cases. All of them show beautiful meridional fissures, one transverse and two longitudinal, one of the latter dividing the skull completely into halves.

CLASS H. *Fractures Caused by Falls upon the Vertex: Accidental.*—Of these I have seventeen cases. In all, the fissures are meridional and can, I think, be attributed to a burst. In one the front half of the skull is divided longitudinally, and in one the posterior half is similarly divided. In one the fissure divides the skull into halves longitudinally; in two it divides it into halves transversely. In one the basilar artery was found caught in a transverse fissure of the basilar process of the occipital bone.

CLASS J. *Fractures Caused by Falls upon the Condyles (Transmitted from Feet): Acci-*

dental.—Of these I have only three cases. In two both posterior clinoid processes were broken off—which can be attributed to the lengthening of the antero-posterior diameter of the skull—and there was a transverse fracture of the apex of the petrous bone. In the third case there is only a longitudinal fissure of the horizontal plate of the ethmoid bone on one side.

CLASS J. *Fractures Caused by Blows on Condyles: Experimental*.—Of these I have four cases. In all of them the dorsum of the sella turcica has been torn off the elongation of the antero-posterior diameter of the skull. In two cases this is the only fracture. In one case the whole base is also divided transversely, the fissure passing across the basilar process of the occipital bone. In one case there are also three independent fissures, all transverse.

CONCLUSION.	The analysis of these 119 cases shows that 111 present fissures which correspond to what might be expected from an application of the principles of the “bursting theory,” and only eight seem to contradict it. This result, which has surprised me by its apparent completeness, seems to establish this theory by the best test which we can apply to it, so that it appears to rest upon a very firm tripod of reasoning, experiment, and clinical observation.
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I trust it will not be supposed that, in making so much of the bursting theory in this paper, I have overlooked the fact that there are fractures which can not be accounted for by it. There are some fractures in which the force applied is so great, and acts in such a manner, that the skull is crushed so as to hide any evidence of the play of its elastic properties, the fracture being of a comminuted sort; and there are others in which, as I have noted in passing, one segment of the skull seems to be shoved over the other by forces of pressure and counter-pressure which require some study before their mode of operation can be understood.

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In this connection it is of importance to learn in any case the position which the skull has held in relation to the spinal column, or to any body capable of exerting counter-pressure. No less is it important not to overlook the counter-pressure which is caused by the simple *vis inertiae* of the skull, and its contents.

But it would be impossible to speak of all the influences which may modify the strict application of any one theory in regard to fractures of the skull. I have laid before you all the evidence which I now can in regard to this matter; and I must close with the expression of my own conviction that the supreme law governing the production of indirect fractures is that which depends upon the fact that the skull is practically a hollow elastic case, approximately oval in shape, and which may be briefly formulated as follows: When a sufficient force is applied to any curvilinear part of the skull, if this part do not give way immediately, the axis of skull lying in the same line as that of the applied force is shortened; all the axes lying in the planes at right angles to this line are correspondingly lengthened, with a proportional lengthening of their circumferences, and separation of their meridians; so that the direct depressing force is converted into an indirect disruptive force acting at right angles to the direction of the former. The effect is to produce a fissure, or fissures, which will have a general meridional direction.

The application of this law is subject to modifications due to the anatomical and architectonic peculiarities of the skull, its coverings and contents, and to certain exceptions due to the amount and velocity of the force applied, as well as to the coming into play of peculiar counter-forces.

The antiseptic principles of surgery have grown entirely from experimental pathology, and mark an era of progress which shall live upon the most enduring page of the history of this century.

EYE, EAR, AND THROAT.

HYPERTROPHIES
OF THE PHARYN-
GO-NASAL
CAVITIES.

BY
O. F. BROWN, M. D.,
LEXINGTON, KY.

Read to the American
Rhinalogical Associa-
tion, at St. Louis,
Oct. 5, 1886.
[St. Louis Med. & Sur. Jour.]

We have found chloro-acetic acid of great use in the treatment of that form of red hypertrophy of the nasal cavity, which has become sufficiently organized to resist mild treatment and is not so far advanced as to require the use of

the snare, galvano-cautery, or chromic acid. Chloro-acetic acid is easily applied and controlled, and is especially beneficial when the hypertrophy is soft and yielding. There is, in such a case, a greater proliferation in the mucous membrane, which is thickened and largely gelatinous, and, owing to the fact that acetic acid readily dissolves gelatinous tissue, these growths rapidly disappear under its application. If too much of the membrane is not permitted to dissolve, the eschar is scarcely apparent.

The best means of applying the remedy is with Sajou's acetic applicator and only the hypertrophied tissue need be touched. When both sides of the nostril are affected, a flat probe bent at an angle of 150° and covered with cotton may be used.

Chromic acid is used in gray hypertrophy and in that form of red hypertrophy where the greatest proliferation is in the sub-mucous tissues, and where the whole substance of the growth has become firmly organized. Acetic acid is too slow in its action here. It is necessary to destroy a portion of the mucous membrane to reach the growth underneath. It is doubtful if the spray treatment is of any value in these cases, as it has been tried for five or six months without success.

There is very little sensation of pain in the application of chromic acid, even when cocaine is not used. Precautions should be taken to prevent the eschar from becoming too deep, as chromic acid oxidizes tis-

sues with great rapidity. A good plan is to spray an alkaline solution immediately after its application. The use of this acid is followed by a scar, but an experience of four years has shown no ill effects from it. The scar contracts, and is often nearly hidden by the membrane around it, leaving the patient in a much more comfortable condition. The best use to which this acid is put, and the one from which the most immediate benefit is derived, is in pruritic rhinitis (hay fever). Our theory in regard to this disease is that it is simply a sub-division of hypertrophic catarrh: a form in which the nerves, as well as the mucous membrane and sub-mucous tissues have become diseased. The terminal nerve fibres probably become enlarged and sensitive, as in a sensitive stump after amputation. The destruction of these areas of swollen and sensitive nerve fibres becomes necessary and can be best accomplished by means of chromic acid.

In conclusion, we will say that in mentioning the uses of the acids in the treatment of hypertrophies, we do not wish to convey the idea that this is the only treatment to be used, but wish to call attention to those cases in which we have found it to be of the greatest benefit. We believe where the milder spray treatment can be employed with benefit, it ought to be used.

RHINOLOGY OF
THE PAST AND
THE FUTURE.

BY
C. H. VON KLEIN, M. D.,
DAYTON, OHIO.

Read to the American
Rhinalogical Associa-
tion, at St. Louis,
Mo., Oct. 6, 1886.
[St. Louis Med. & Sur. Jour.]

For us no subject can present a higher interest than an inquiry into the past and a look into the future of rhinology. No research on such a subject can be accounted too minute, no labor too exacting. Progressive as we have been in the past few years, we can not boast of having revealed the last traces of civilization. When we look back into the history of medicine and surgery we find that rhinology, as a specialty, is not the modern invention that many

suppose it to be. Egypt was the earliest home of medical skill, and every mummy, of the more expensive and elaborate sort, involved a process of anatomy, particularly as to its pathological condition, and these interesting pathological specimens were more numerous by reason of the profession being divided into specialties. Herodotus says:

“Egypt claims the invention of the healing art. The medical practice among Egyptians is divided, and each physician is for one kind of sickness and no more, and all places are crowded with physicians, for there are physicians for the eye, head, nose, teeth, stomach, and internal diseases.”

It was claimed that the best anatomists among these specialists were those who practiced on diseases of the nose and stomach, or the embalmers. In this process the rhinologist first removed a part of the brain through the nostrils by means of a crooked iron, and destroyed the rest by injecting caustic drugs. The embalming was then finished by the practitioner of the stomach.

Besides embalming, the rhinologists were assigned as executioners of the punishment for adultery, which was inflicted upon adulterers by amputation of the nose. Strabo says: Rhinocolura is so-called from the colonists whose noses had been amputated. Some Ethiopians invaded Egypt, and instead of putting the malefactors to death, having cut off their noses, they settled them at Rhinocolura. This gave those specialists opportunities for inspecting a vast amount of material, varying in every possible pathological condition. Their reputation was so widely established that Cyrus and Darius sent to Egypt for physicians. The former was afflicted with *polypi nasi*, the latter with ophthalmia.

From all historical accounts it is demonstrated that rhinology was one of the most cultivated specialties in the art of medicine. No doubt rhinoscopic examinations were made by the Egyptians. The use of the mirrors among them was very common.

The treatment in rhinology we may im-

agine was absurd; yet Herodotus described the treatment by inhalation, fumigation, and inspiration of essential oils, just as it is used at the present day. Fumigations were extensively applied in clearing away the mucous incrustations which generally exist in syphilis of the nose. As to the success we are unable to find records thereof.

It was not until the beginning of the present century, when the “scopic” method was thought of, that physicians became able to make a correct diagnosis of diseases. Considering the numerous difficulties and the multitude of conflicting theories which had from time to time been promulgated, on account of the parts and by reason of their being hidden from view, the pathological theories of nasal diseases were absurd and unphilosophical. Yet with all its antagonism it has in a great measure unveiled itself before the light of modern investigation and become reduced to a more scientific basis, although we can not boast that we have opened a new road to medical science.

Our first acquaintance with some sort of an illuminator of the upper respiratory tract, is one mentioned by Loviet, of Paris, in 1743. In 1803 Bozzini invented a kind of hand mirror for the purpose of examining all sorts of obscure cavities in the human body. In 1827 Senn, of Geneva, proposed to examine the larynx by a small mirror, by inspection into the mouth. In 1829 Dr. Babington, of London, invented an instrument which he termed glottiscope, and also some sort of a tongue depressor of polished steel combined with a mirror. In 1832 Kaslinsky, of Warsaw, invented a combined mouth speculum and gag. In 1835 Plate, of Amsterdam, described a double mirror for the examination of the larynx and pharynx. In 1838 Selligue, a very intelligent machinist of Paris, who was himself subject to laryngeal phthisis, invented a laryngeal speculum consisting of two tubes, through which light was thrown into the glottis, and by a counter glass, which he placed in a pe-

culiar manner, he was able thereby to view his own disease. In 1838 Baunies, of Lyons, demonstrated a laryngeal speculum which can not be found anywhere described. In 1840 Liston, of London, applied in the larynx a dental mirror similar to that of Babbington. In 1844 Dr. Warden, of Edinburgh, introduced a contrivance made of an argand lamp for the examination of the glottis. In the same year Avery, of London, is said to have invented a successful instrument for the purpose of examining the dark parts of the upper respiratory organs. In 1855 Garcia explained in what manner a large reflecting mirror, with a small dental mirror, can be made to exhibit the anatomy and the physiological action of the laryngeal and pharyngeal organs. In 1857 Dr. Tuerck, of Vienna, perfected a laryngoscope similar to that of Garcia's. Through Tuerck's invention of the laryngoscope we are indebted to Czermack for the invention of the rhinoscope.

The rhinoscope evidently brought to light the necessity of inventing the other numerous and valuable nasal instruments. It has lately been discovered that many of the lower respiratory organs could not be healed until the diseases of the nasal cavities were cured. Indeed there is scarcely an organ or structure of the body which is not occasionally affected by the nasal disease. It stands to reason; the nose is the gateway to disease; in nine cases out of ten the causes of human ailments pass through the pathway of the nasal cavities. All diseases caused by exposure, or inhalation, must evidently make their first impression within the gate, the nose.

The nose is the foundry of a large machine shop wherein disease appears in its rough casting. The other organs are finishing-rooms, wherein the disease appears entirely developed. In fact, the whole human body is comparatively a machine, and such a machine should be handled by different machinists. As all the cogs are connected, therefore there ought to be understood by

each mechanic the connection of the entire machine. It is even so with the physician; though he ought to understand every physiological action, and its anatomical connections with every part within the human body, yet, I hold that he ought to practice only a specialty.

I believe that rhinology is one of the most difficult of all studies. It takes more perseverance, patience, and assiduity to make a correct rhinoscopic diagnosis than in all other "scopics." Our late lamented and beloved Dr. Austin Flint gives the following to the world with the last stroke of his pen: "The unavoidable subdivision of medical literature and medical instruction into special departments makes necessary, to a certain extent, specialism in the practice of medicine. . . . Specialism conduces to the advancement of knowledge." Dr. Angell, of Rochester, President of the Medical Society of Central New York, says: "It is an undeniable or self-evident fact that at the present day medical science has expanded to such an extent that its intelligent cultivation as a whole, by one person, has become impossible." The body of the medical profession should and must be "broken up" into "specialisms." The physician should not remain "a jack of all trades, and master of none."

The illumination by the rhinoscope, the examination by the microscope, the extirpation by the electro-cautery, the inspiration by the spray will make rhinology fruitful and progressive. The day is not far distant when all diagnosis of the respiratory and kindred organs will first be looked after in the upper respiratory tract.

PHLYCTENULAR KERATITIS.	Mydriatics in acute
	and Myotics in chronic
	keratitis phlycten-
	ulosa are the only forms of local treatment
	which should ever be employed. Stimulat-
	ing astringents always do harm. Constitu-
	tional treatment is always necessary, and
	may, in most acute cases, be relied upon.

OBSTETRICS AND GYNÆCOLOGY.

A REVIEW
OF UTERINE
THERAPEUTICS.

BY L. S. MCMURTRY,
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Read to the Central Kentucky Medical Association, Oct. 20, 1886.

I shall endeavor in this paper to give a brief resumé of some of the most important measures belonging to uterine therapeutics, and from the extent of the subject and the limit of my time, must of necessity treat them in a fragmentary way. The subject needs to

be considered from both a medical and surgical standpoint.

PATHOLOGICAL
CONNECTIONS OF
THE UTERUS.

Through the uterus, ovulation, menstruation, and gestation are performed; and in addition to its own pathological processes, it is intimately connected with those of the ovaries, the Fallopian tubes, the bladder, the rectum, the peritoneum, the pelvic cellular tissue, and certain morbid conditions of the nervous system, the exact nature of which is very imperfectly understood. Hence, a consideration of the therapeutics of the uterus includes all measures which are addressed to that organ directly, and to these important connections. Many points connected with the physiology and pathology of the uterus and its appendages have not yet been mastered, and are involved in persistent controversy. As a result of this imperfect state of our knowledge the therapeutics of gynecology holds a rapidly shifting and inconstant position. But throughout all these changes progress may be seen on every hand, and the entire system of gynecological therapeutics as now practiced is of modern origin and development. No branch of medical practice furnishes such scope for individual judgment and discrimination as does gynecology.

POSITION OF UTERUS.

The classical idea of the position of the

uterus normally is, that it lies midway between the symphysis pubis and the hollow of the sacrum; that its position is one of slight anteversion, and that its axis corresponds to that of the pelvic outlet. In fact there is no common standard by which to determine the proper position of the uterus in all women, but in each individual there is a definite position in the pelvis which the uterus should occupy in a condition of health and unimpregnated. This organ has a certain normal range of movement, depending upon respiration, locomotion, and the contents of the rectum and bladder. The movements of the uterus are limited to their normal range by the uterine ligaments. These ligaments are in pairs, and physiologically are relaxed. A state of tension of the uterine ligaments would be pathological. The chief support of the uterus is the pelvic floor. This is composed of the bladder, urethra, vagina, peritoneum, symphysis pubis, rectum, perineum, and muscular and tendinous structures. Permeating these structures in every direction is the pelvic cellular tissue.

ANATOMICAL
RELATIONS.

It binds the component parts of the pelvic floor together, sends its processes to the bony pelvis, and upon its integrity depends the solidity and integrity of the pelvic floor. These structures forming the support of the uterus are subject to motor influences. They all, as a whole, support the organ and retain it in its proper range of motion. The idea that the uterus is supported by the vagina, or perineum, or the uterine ligaments, is incorrect; they contribute their share as component parts of the pelvic floor, but the pelvic floor as a whole supports the uterus. The ovaries are two flattened, nearly ovoid bodies, attached to either side of the womb by a ligament of contractile tissue, called the ovarian ligament.

UTERINE
APPENDAGES.

They are enclosed between the two layers of the broad liga-

ment. Between the peritoneal folds forming the broad ligament, and near the superior border, are found the Fallopian tubes. The free extremity of the tube communicates with the abdominal cavity by an opening which will admit a goosequill, while the uterine opening does not exceed one twenty-fifth of an inch in diameter. The Fallopian tubes are integral parts of the uterus. The walls of the tubes contain two layers of unstriped muscular fibers continuous with those of the uterus; and the canal of the tube communicates directly with the cavity of the uterus.

The ovaries, being movable bodies and attached by the ligament described to the uterus, which is also a movable body, do not occupy a fixed position in the pelvis. Both ovaries and tubes are connected with their peritoneal covering by a layer of connective tissue, which gives support to a rich plexus of blood-vessels.

The uterus, ovaries, and Fallopian tubes are profusely supplied with blood-vessels, nerves, and lymphatics. The nerves of the uterus and its appendages are derived from the gangliated cords of the sympathetic system, which form the large plexuses in the abdominal cavity, and connect with all the abdominal organs.

A profuse network of lymphatic vessels spreads throughout the entire structure of these organs.

While it is true that reproduction is the dominant function of woman's life, these organs are not vital organs. The general health is better during their periods of quiescence, and they affect both the physical and mental qualities during the period of activity. The ovaries are the essential organs, the tubes, uterus, and vagina being less essential and subordinate. When the ovaries are destroyed by disease or removed, function ceases, and the accessory parts atrophy. These fundamental principles of anatomy and physiology are essential to an intelligent consideration of gynecological therapeutics.

FASHION AND MODERN PROGRESS.	Twenty years ago, Dr. Henry Bennett's theory concerning chronic inflammation
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and ulceration of the cervix uteri was very generally adopted as the basis of uterine therapeutics. Scarcely any female patient with a remote symptom of uterine or ovarian disease in that day was treated otherwise than by the introduction of the cylindrical speculum and the application of nitrate of silver to the cervix and os uteri. Then came the era of ortho-uterine therapeutics, or mechanical therapeutics, under the leadership of Hodge in this country and Grailey Hewitt in England, when almost every pelvic ailment was attributed to some uterine displacement or flexion, and the inventive faculty of the profession was taxed to its utmost in the designing of pessaries.

LAPAROTOMY ESTABLISHED.	Laparotomy is the crowning glory of modern gynecology.
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Though long discussed as a possibility, it was not until 1809 that McDowell demonstrated its practicability. Under the leadership of the Atlees in this country, and Spencer Wells in England, it was firmly established in the face of bitter opposition. Under the fostering care and genius of Thomas Keith, Hegar, Robert Battey, Schroeder, and Lawson Tait, its scope has been enlarged, until to-day abdominal surgery is the marvel of the surgical age. For the removal of diseased ovaries, uterus, and Fallopian tubes; for the treatment of pelvic abscesses, peritonitis, and peritoneal growths; for the treatment of diseased and injured intestines, stomach, liver, kidneys, and spleen, laparotomy is daily resorted to by the gynecologist and general surgeon.

The greatest genius ever enlisted in the development of gynecological science was J. Marion Sims. I reiterate, genius. Others are distinguished by strong perception, vigorous reason, and rugged courage; but Sims was preëminently a man of genius. He

had the courage and tenacity of purpose that characterize a man with a mission to perform, and he performed it nobly. Gynecology was in a crude state when this countryman of ours came upon the stage of action. He founded the modern school of gynecology, furnished the armamentarium of gynecic surgery, and his methods have superseded all others.

THE ANTISEPTIC SYSTEM.

Before concluding this branch of my subject, I desire to allude briefly to the inestimable influence which the antiseptic system of Lister has exerted upon modern gynecological therapeutics. Pelvic surgery has come in for its full share of the benefits of Listerism. There is a popular idea that the Listerian system consists wholly in the application of carbolic acid with the spray and in carbolized dressings to the treatment of wounds and in operations. It is unfortunate that a great principle should be confounded with a single application of that principle. The aim and purpose of Lister's method is to secure asepsis—absolute protection from all septic material and septic producers, which is but another expression for absolute cleanliness. From a recent clinical report I note that Lister has dispensed with the spray in his own practice, and has otherwise materially simplified the system. However individual operators may modify the details of the method, no one can ignore the powerful influence exerted by the Listerian system in the results now obtained in abdominal and pelvic surgery.

INTRA-UTERINE MEDICATION.

The subject of intra-uterine medication involves so much that is mischievous in the practice of the present day that it deserves some careful study. The largest number of cases which come under our care seek advice for leucorrhea. An examination is often omitted and one of the many astringent washes are prescribed, the patient believing she only has "the

whites," and the physician treating that uncertain pathological condition, which he terms "leucorrhea." Even if after a time an examination is made, the diagnosis is quickly reached by glancing at the os, and the patient is treated with an application to the cervical and uterine canal of carbolic acid, nitrate of silver, iodine, or other alterative or astringent. By hasty diagnosis and routine treatment a symptom is mistaken for a disease, the patient's condition is not improved, but on the contrary is often made worse by the treatment. The canal of the cervix is lined by a highly organized mucous membrane, but recent histological research renders the existence of a mucous membrane above the internal os questionable. Whether the cavity of the fundus is lined with a true mucous membrane or an out-growth from the muscular tissue, we know that it is constantly undergoing change and being removed. This surface may become covered with vegetations; it may be the site of a polyp; it is affected by disturbances of the pelvic circulation, by fibroids, and other growths, but endometritis, simple and uncomplicated, is indeed a rare condition of disease. The lining of the uterine canal is a prompt absorbing surface, and a close connection exists between this surface and the peritoneum. Pathological changes in the uterine canal in the non-puerperal woman are almost invariably associated primarily with changes in the pelvic tissues outside the uterus; and caustic and stimulating applications to the intra-uterine surface will in turn almost surely be followed by pelvic cellulitis and peritonitis.

Almost every practitioner has had this experience: A patient applies with leucorrhea, pain in the back, and general debility. The uterus is examined; a steel sound introduced; then the cervical and uterine canal wiped out with cotton, and finally a powerful astringent solution applied to the whole surface. This may be repeated after a few days, but soon a call is received to visit that patient, and she is found with a fever, pelvic

pain, and other symptoms of peri-uterine inflammation. The leucorrhea may for a time be checked, but a pelvic examination will show plastic effusion, and all the dangers of cellulitis and peritonitis. She is in much worse condition than before the intra-uterine application was made. In such a case no diagnosis was made, and a symptom was treated by an application seldom applied in such strength to any other part of the body save for the destruction of diseased tissue. In the analysis of symptoms the character of discharge should receive close attention. This may be serous, mucous, purulent, or bloody; or two of these varieties may be associated. To arrest a serous discharge in cases of peri-uterine inflammation, is to stop nature's efforts and increase the activity and extent of inflammation. The uterus is an erectile organ, and surrounded by a dense network of blood-vessels, running in every direction through the cellular tissue, and connected with the pelvic organs. The veins are subject to inflammation, and are often congested and obstructed; the lymphatics of the uterus are subject to engorgement as attains elsewhere in the system, and these conditions may produce changes in the uterus. Such changes of the size, structure, and position of that organ should not of course be treated as a primary disease. We must constantly remember that endometritis distinct from pathological states of the pelvic tissues outside the uterus is a very rare condition of disease.

Local treatment may be classified under three headings: first, washing out the uterine canal; second, cauterization of the uterine cavity; third, mechanical removal of diseased tissue, or currettement.

The first, washing out the uterus, is essential in many conditions to proper treatment. The application of caustics is rapidly passing into disuse. The necessity seldom exists for applying nitrate of silver, solutions of iron, and the mineral acids to the uterine canal. Iodine in the form of Churchill's tincture, or mixed with carbolic

acid, is probably the most valuable of all the remedies applied to the uterine canal. It produces contraction of the uterine fibres, and it is both a local and general alterative. It will arrest passive hemorrhage from denuded surfaces, and restore healthy nutrition. For most cases Churchill's tincture, diluted to meet the special indications, will be found the best preparation. Glycerine is a valuable agent in this connection. It is antiseptic and furnishes an admirable solvent and vehicle for other agents. Its affinity for water depletes engorged blood vessels and excites contraction of the vessels. For the removal of fungus growths, particularly granulations and vascular formations, the curette is invaluable. This instrument should always be used advisedly and with circumspection.

PESSARIES.

The use of pessaries is, as a rule, followed by very unsatisfactory results. From what has already been said as to the normal position of the uterus it is not rational practice to attempt to fix this organ in an ideal position. I have almost invariably been disappointed in the use of pessaries. As generally applied these instruments only serve to stretch the vagina. It is doubtful if any one pessary will fit any two women. The peculiarities of each case should be studied, and the pessary moulded to suit individual requirements. The comfort of the patient is the best guide to the proper adjustment of a pessary. In cases of prolapse, retroversion, and retroflexion, when the uterus is replaced and retained in position, the circulation through the organ is established and much good is accomplished. Though faithful in my efforts, I have more often failed than I have succeeded in accomplishing this object with pessaries. After restoring the uterus to position, a pledget of cotton properly moulded and applied, while the patient is in the semi-prone position, and Sims' speculum introduced, together with judicious attention to the removal of the causes producing malposition, have yielded in my

hands better results than the application of pessaries. The intra-uterine stem and cup pessaries should, in my judgement, be wholly excluded from gynecological practice. I have witnessed serious injuries to the uterus directly, pelvic cellulitis, and reflex disturbance of the general nervous system from the use of these instruments.

THE UTERINE SOUND.

In connection with this subject I will state that the habitual and careless use of the uterine sound may be productive of harm. It has been demonstrated that this instrument is often unconsciously pushed through the entire uterine walls in the effort to discern the length of the uterine canal and the position of the organ. Infectious material may also be introduced by the routine use of the sound, and endometritis, peritonitis, and cellulitis often result. At the last meeting of the American Medical Association (St. Louis) this subject was thoroughly discussed in the gynecological section, and testimony was abundant to demonstrate the capacity of this instrument for doing injury. The sound should be used when necessary, but the instrument should be thoroughly cleansed and rendered antiseptic, and be manipulated with a deft and gentle hand.

PELVIC CELLULITIS

AND PERITONITIS.

Pelvic cellulitis is usually complicated by pelvic peritonitis, and may be complicated by endometritis, ovaritis, and salpingitis. This is the most important disease with which the non-puerperal woman is afflicted, and its causes and prevention, early history, and treatment should be fully understood by every one engaged in treating uterine affections. The pelvic cellular tissue is most abundant in the spaces where the vessels and nerves are found in greatest number, viz: along the sides of the uterus and upper portion of the vagina, between the folds of the broad ligaments and the under surface of the ovaries and Fallopian tubes, in the folds of the uterosacral ligaments, and in the vesico-uterine

space. Pelvic cellulitis is often insidious in its nature, and frequently is detected by accident after it is well-advanced without much disturbance of the system. The disease is characterized by the effusion of serum, and plastic lymph may cement the opposing sides of the peritoneum. The ovaries may be buried in the plastic deposit, and when this contracts the ovaries become atrophied, the Fallopian tubes obstructed, and nerve filaments compressed. Uterine displacement and fixation of the organ are apt to occur. Pelvic cellulitis may terminate in resolution, or may go on to suppuration and the formation of pelvic abscess. In addition to ordinary antiphlogistic measures, associated with rest, the local application of hot water is of the utmost importance. According to Emmet, the author of this method of treatment, the disease may be aborted if treated early by prolonged and frequently repeated vaginal irrigation with hot water. By this treatment the circulation in the pelvis is stimulated so that the local congestion may be relieved before nature attempts to do so by the exudation of serum into the tissues. When the disease terminates its acute stages, and from the associated peritonitis the uterus, ovaries, and Fallopian tubes are found fixed in their normal position, or in some displacement, the local use of hot water plays an important role in the treatment of this condition. To obtain the best results from this method certain precautions are necessary. Indiscriminate use of hot water, leaving its administration in the patient's hands, will prove unsatisfactory. The water should be *hot*, as hot as can be borne, and should be used in large quantity—one or two gallons—and for a prolonged time. Discretion should govern its continued use. It is most efficacious in cases of incipient pelvic cellulitis and chronic peritonitis. When used excessively, that is too often repeated, the pelvic organs and tissues are relaxed. The patient should always be in the recumbent posture during the application of hot water. She should not attempt to administer it her-

self. The water should be as hot as can be borne at first, and the temperature gradually increased. It is intended to imitate the hot bath. A syringe with a continuous current, like the fountain syringe, should be used instead of the pumping syringe, such as the Davidson. The application should be made once or twice a day, depending on its effect upon the patient.

By this method I have succeeded in limiting and controlling inflammation around the site of the pedicle after ovariectomy, and have found it of inestimable value in the prevention and treatment of cellulitis after operations upon the cervix. In the treatment of chronic perimetritis with plastic deposit about the uterus and roof of the vagina, the local application of heat in this way stimulates the absorbents and eliminates the inflammatory process as well as its products. The local application of tincture of iodine to the fundus of the vagina every three or four days is a valuable adjunct to this treatment in chronic peri-uterine inflammations. The value of glycerine as a depleting agent in peri-uterine inflammations, both acute and chronic, is unquestioned. Possessing antiseptic properties in addition to a strong affinity for water, its use in such conditions is highly esteemed. It should be applied with the aid of the Sims' speculum upon a tampon of absorbent cotton.

LACERATIONS OF THE CERVIX UTERI.	Forty years ago Dr. J. Henry Bennett, of London, called attention to the great frequency of lacerations of the cervix-uteri occurring in the process of labor and abortion; and to the additional facts that these lacerations may be very extensive, that peri-uterine inflammation may follow, and the injury remain unrepaired. It is only of recent date, however, that Dr. Emmett described the cicatricial ectropium of the os uteri, demonstrated its pathological significance, and established the operation known as trachelorrhaphy for restoration of the cervix and re-
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lief of the local and constitutional disturbances caused by the lesion. The treatment of this lesion includes the treatment of the associated peri-uterine inflammation, and of the reflex nervous disturbances, which are conspicuous results of cicatricial deposit and ectropium of the cervix. The operation, with associated treatment, yields brilliant results, and is one of the great triumphs of modern gynecology. But it has been much abused in recent years. Some practitioners in their zeal and enthusiasm can scarcely find a cervix among women who have suffered labor or abortion that is fashioned after their standard. They forget that, save in exceptional cases, nature is quite capable of repairing the lesions of normal labor. In this way the operation, so potent in the relief of suitable cases, has been resorted to in conditions not dependent on cervical lacerations, with results tending to bring the operation into disrepute. More careful discrimination is needed in the selection of cases for the operation.

REMOVAL OF THE UTERINE APPENDAGES.	It was my purpose to consider briefly the operation for removal of the ovaries to bring on the menopause—the so-called Battey's operation, and the removal of the Fallopian tubes, or uterine appendages (Tait's operation); but the limits of this paper will not permit. I may say that nothing has occurred in the gynecological world during the past two decades which has attracted so much attention as these operations upon the uterine appendages. The result has been a great deal of good work and some very bad work.
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The sentiment of the profession has now reacted in a protest against the indiscriminate way in which these operations have been performed, and against excesses in gynecological surgery generally. In this field more than any other just now is needed conservatism, and judicious selection of cases for operation.

ALEXANDER'S
OPERATION.

A few years since Alexander, of Liverpool, instituted an operation for extreme retroflexion of the uterus, which consists in cutting down upon the round ligaments where they enter the inguinal canal, pulling them forward and stitching them to the abdominal wall. This operation has been done a number of times in this country by Dr. Wm. M. Polk, of New York. It is attended with some danger, and from the nature of the parts and the forces governing the position of the uterus, it does not seem likely to be of permanent value. Doubtless the same forces which retroflexed the organ will continue active and bring about the same result after the operation.

Concerning many points in minor gynecological therapeutics, there is much for our consideration, which time will not now permit. Through the influence of the sympathetic nervous system, diseases of the female organs of generation are associated with reflex irritation and remote disturbances, necessitating accurate knowledge and patient investigation for their successful treatment. A more thorough knowledge of general medicine and surgery is requisite in this, perhaps, than any other special branch of medical practice. The moral and hygienic surroundings of the patient, and those agencies promoting healthful nutrition, must at all times receive attention in order to succeed in the treatment of uterine diseases.

FRANK JAMES' MICROSCOPY.

The charge has been made that Dr. Frank L. James, our esteemed and able confrere of the *Saint Louis Medical and Surgical Journal*, introduces too much microscopy. This is like the complaint that it is unfair for College professors to read papers or take part in discussing the essays of others. When the critics learn the uses and revelations of the microscope, the medical profession will be correspondingly elevated.

URÆMIC
CONVULSIONS
DURING LABOR.

BY
THOS. D. WILLIAMS,
M. D.

Read to the Beech Fork
Medical Society, at
Bardstown, Ky.,
Oct. 19, 1886.

Among the numerous sources of that anxiety to which the physician is exposed, is the dread that he often feels lest his pregnant or parturient patient should be attacked with eclampsia or puerperal convulsions. It is not a malady met with every day, but as you all know full well, the literature of the subject establishes the fact that they are as old as the puerperal process itself. Yet so terrible are the eclamptic phenomna, so awful the consternation they produce on family and friends, and even on physicians, so frequently futile the efforts of the profession to control them or to save the lives of the unfortunates, that a medical body, I presume, is always willing to listen to whatever pertains to the subject. It is mainly with this view, then, of adding to the mass of data which time collects, that I present you the history of a case to-day, and subjoin some concise remarks bearing upon what seem the most important relationships of the subject, hoping to elicit an expression of opinion from the gentlemen present.

On the 27th of August last, I was hastily summoned eight miles in the country to see Mrs. I. T.—a primipara, aged twenty-three, short and stoutly built, with a very short neck, and in labor at full time. Arrived about twelve o'clock A. M., finding the family and friends in grief and confusion, the patient having had a convulsion, before my arrival, from which she was slowly recovering. Her face, hands, feet, and legs were quite oedematous, in fact, there appeared general infiltration of the tissues. Her mother said she had been suffering a severe headache for some days. At times it gave her great agony. Taking in the situation as quickly as possible—apprehending from this head symptom—a series of eclamptic phenomina, I gave at once a full opiate hy-

podermically. There being much nervous excitement, and she inclined to resist my efforts, I used light inhalations of chloroform, hoping to somewhat tranquilize the nerve centers. But the uterine contractions were increasing in severity, and before the opiate and chloroform had time to accomplish anything, there was an escape of the liquor amnii; for a moment she was still, then all of a sudden becoming restless, followed by a slight drawing of the head and face to the left side with the twitchings of the conjunctivæ and muscles generally of the left side of the body, then a fully developed general convulsion, complete loss of consciousness, flushed and livid features, dilated pupils, full, strong, and bounding pulse. Believing the life of my patient and her offspring to be in great peril, I determined, if possible, to deliver at once. As quiet was returning, making a hurried digital examination, found presentation in the first position, ready to engage at the superior strait, the os amply dilated. Applying the forceps (the Hodge), I delivered her promptly of a living child during the stage of coma, without injury to the tissues. I succeeded in getting the placenta in a few minutes. The uterus contracted firmly and remained so, with the loss of not more than four or five ounces of blood; the coma lasting fifteen or eighteen minutes; the pulse gradually lost its fulness and strength; she becoming sufficiently conscious as to call for water. Gave thirty grains hydrate chloral by the mouth, but ere it had effected any thing there was a recurrence of the convulsion, with all the attending phenomena, save that the coma was more profound and prolonged, the return to consciousness slower, a state of great agitation and restlessness developing, which required the use of chloroform to control or obviate. One hour at least from last convulsion before she was entirely conscious. She then talked to me and the friends around and asked if the babe was living. Some headache, gave potass bromidi gr. xxx, chloral hydratis gr.

xx, with an oz. whisky, she appearing quite weak. Remained till near night.

I learned that for several days she had passed but little urine, though the desire had been frequent. Her bowels were sluggish, and had been for weeks. Her urine was largely albuminous. Ordered potass. bromidi gr. xxx with an oz. whisky every two hours, when awake; liquid nourishment if she desired it. Saw her at nine o'clock on the 28th. No convulsions since leaving her on the 27th. Slept several hours during the night. No headache. Had passed a little urine, it being cloudy and much sediment in it. Ordered calomel and ext. colocynth co āā gr. v; ext. hyoscyami, gr. iv, and sulph. quininiæ gr. xx. M. Ft. capsule 4. Sig 2 now, the others in four hours. Also, liq. am. acetatis ʒiij and pot. acetatis ʒvi. M. Sig. tablespoonful every four hours. Saw her at ten A. M. on the 29th. Good tidings from the capsules. Two copious actions from the bowels. The kidneys were doing well. Slept well. No headache. Slight pelvic tenderness. Pulse 80, temp. sub-normal. Inclined to eat more and relish it.

While it is conceded by all that primipara women are much more liable to puerperal convulsions than multipara, nevertheless all parturient women are more or less liable, and especially is the case when we find them having the following train of symptoms or phenomina, viz: severe headache, sluggish bowels, scanty urine with albuminuria, excessive nervousness, vertigo, dimness of vision, double vision, and œdema, or general infiltration of the tissues. Remedies should always be addressed to these abnormal conditions in time. Where this has been done a majority of pregnant women have gone through their labors happily and triumphantly, while many having neglected to consult their family physicians, or to get the necessary medication, have paid the saddest penalties—the loss of their lives.

I believe that in many instances where much infiltration is present that the blood is

anæmic, and such cases are greatly benefitted by large doses of iron, with or without quinine. Quinine in moderate doses does much good. Mild purgatives or laxatives are needed and should be used in sluggish conditions of the bowels. Diuretics are admirable to a limited extent, the mildest, and surest, should be used. Having often followed this line of medication, I have, in many instances, been instrumental in warding off the convulsions. I have seen a number of cases that had been neglected, and they paid the dearest and saddest penalties therefor—the loss of their lives.

IRITIS.

In iritis there is nearly always great redness of the conjunctiva, and the engorged blood-vessels are plainly seen radiating outward from the corneal margin. The tears flow freely, the eye is morbidly sensitive to light, and there is generally supra-orbital and temporal pain. The red conjunctiva is purely a congestion and calls for no specific treatment. It is often, however, mistaken for conjunctivitis and assailed with nitrate of silver, sulphate of zinc, or acetate of lead collyria, greatly to the patient's disparagement, and often peril. It is certain no local treatment should ever be employed until a diagnosis is made; and, if iritis be present, even as a complication to some other affection, mydriatics are the only medicines to be employed locally.

The only form of conjunctivitis which is ever unattended by inflammatory excretions is the traumatic, and this will always be aggravated by astringents. If the pupil dilates readily under the local use of atropine drops and the pain subsides, no other treatment need be employed; if, however, the pain be persistent, active catharsis may, in plethoric subjects, be found highly beneficial. In syphilitic cases the iodides of sodium or potassium should be administered freely. In malarial cases quinine given in one full dose every night until the disease abates.

Do not give any form of mercury in iritis.

PATHOLOGY AND HYGIENE.

A PROTEST
AGAINST
DRUGGIST'S
PRESCRIBING.
BY
CORNELIUS SKINNER,
M. D.,

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Surgical and Comparative
Anatomy and Clinical
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Louisville.*

[Read to the Louisville Medical
Society.]

For the sake of convenience I have divided my subject into four heads; first, extent to which the practice is carried on; second, its effect upon physicians; third, its effect upon the people; fourth, means by which it may be checked. The extent to which this practice

is carried can best be illustrated by a few figures. According to the latest city directory there are in Louisville 104 drug-stores; and taking for an average prescription business 4,000 (which is less than the average of those whom I questioned and whose files I examined), this would foot up 400,000 prescriptions filled in one year. Deducting 100,000 for refills, we have 300,000 prescriptions written and filled every twelve months. In looking over the files I saw in one store that one in every five or twenty per cent of all he filled had been written by the druggist himself, giving him 800 out of 4,000.

Now, taking this as a basis for our calculations, twenty per cent of all prescriptions, it can be safely said, are never seen by any regular practicing physician. This will give us 60,000 to which we give the name of "counter prescriptions," and looking at it from a financial point it represents \$60,000 in money lost to the physicians of Louisville annually, counting each prescription \$1.00 as we would do, for they would all become office patients, or \$300 for each physician, as, according to the directory, there are in round numbers *two hundred regular* physicians in the city.

Second.—With these figures we can readily see what injustice there is to all physicians, since none of us carry medicines and invariably send the party to his regular

druggist for the simplest remedy, thus compensating the drug man in every case.

Not only does it deplete our pocket-books, but it oftentimes is apt to mislead in forming a correct diagnosis, *e. g.* in skin troubles, etc., and more frequently renders what in the beginning was a mild case particularly difficult to manage, and at the same time making it impossible to collect a fee that would in any way compensate us for our work and trouble.

Fancy yourself treating a number of gleet cases, where Mr. "Dr." Druggist has preceded you with his wholesale and sure cure for gonorrhea, in all its ages, stages, and phases!

Third.—The effect of such a practice on the public is three-fold.

(A). The *moral* effect of instilling into the minds of individuals that idea of getting medical advice and medicine for a nominal price, when both are to be had from the same individual, and when it becomes necessary to seek medical advice *purely*; they never want to pay a full fee or resort to a much worse practice of paying nothing, and in the future if they can not impose upon some other doctor, they become habitual users of patent medicines, which are (by the way) in many cases thrust upon the public by unscrupulous druggists. I have repeatedly had druggists to tell me that they made considerably more money on their patent medicines than any thing else, and upon every occasion possible would recommend some patent nostrum. Have you not noticed that this class of patients, who have been treated by druggists, are the most inveterate kickers when their bill was sent in? These gleet cases can not understand why you should charge them such a large fee for treating so slight a discharge; when the druggist charged only one or two dollars for curing the gonorrhea, not knowing of course the origin of the trouble for which they came to you.

(B). It deludes the people into that idea of saving money, when in reality it places them in a position to spend more.

(C). And by far the most important of all to consider in this paper is, the permanent and sometimes fatal effect produced upon an individual. You are all familiar with the fact that in many cases the symptoms of some rapidly fatal disease are so obscure that even with the best and most scientific means at our command mistakes are made that are lasting and irrevocable. If under such circumstances we make mistakes of vital importance, how great is the responsibility of a man, who, though he knows nothing of the case in hand, yet will attempt a diagnose and prescribe.

For example, take typhoid fever that in the beginning is a walking disease; the druggist, instead of referring the case to a physician who will recognize its gravity and treat accordingly, will make a failure of it, and in all probability at the expense of a life. Not only is this true with typhoid fever, but with *many* other troubles, notably our familiar intermittent and remittent.

Now to sum up, let us say, send the sick man or woman first to a *regular physician*, who will make a diagnosis and send the patient to a *regular druggist* with an order for the proper remedy and directions for use, which will in the end save him time, money, and possibly his life. These are the effects of a practice among men, all of whom know it to be wrong and feel that an apology is due every physician for each offence, the apology being, others do it, and I must, or lose business.

Now in conclusion let us see what can be done to check such a growing wrong.

First.—By an appeal to all the Druggists in the form of a circular from the Medical Society of Louisville, asking each individually to abandon such a practice, and work in unison with the doctors, who are of course their best friends, and among whom there should exist a closer union. This may seem to the uninitiated a combination for gain, but, as I have attempted to prove, it acts directly as a protection to the people, for they will save money.

Second.—If the druggists, as a class, pay no attention to the requests of the doctors as a class, then try another remedy, viz., find who among them will agree to the first proposition and direct all prescriptions as well as other business to them. Though some of them make money by the sale of patent medicine none can be independent of us.

Third.—Get our next legislature to pass a law making it a finable offense for any man who is not a practicing physician to prescribe for his fellow man, or give a prescription second-hand to any person without the consent of the doctor of medicine who wrote it.

AVOIDABLE
CAUSES OF
DISEASE.

BY T. B. GREENLY,
M. D.,

WEST POINT.

[Read to the Hardin County
Sanitary Association, at
Elizabethtown, Oc-
tober 20, 1886.]

It should be a source of gratification and even congratulation to not only the profession, but the people at large of Hardin County that we have, you might say, taken the initial steps in Kentucky in having at the

head of our county board of health, a health officer. The duties devolving upon such an officer are multiform in character. He is to have supervision over the sanitary surroundings of the people, and warn them of any cause of disease that may come under his observation. Should any epidemic manifest itself within the bounds of his jurisdiction it will be obligatory on him to investigate its origin and character, and devise means for its management and suppression. He will also have supervision over the vital and mortuary statistics of the county, and see that due reports are made by the various physicians of his district.

It is to be hoped that both physicians and people will do all they can to facilitate the work of the health officer, so that his efforts in this regard may be successful and redound both to the honor of himself and felicity to the people.

At the solicitation of my friend, the health officer, I promised to give in a brief and condensed manner *some* of my observations, in over forty years, as to what I regarded as preventable causes of disease. Of course in a paper to be read before a body of this character the limits are prescribed, and details can not be fully given. With this view in mind your speaker will aim to confine himself to facts having come under his observation. The instances of diseases which were, in his estimation, attributable to causes which were removable and could have been prevented, are such as frequently exist in the environs of dwellings, and can be made tangible to the senses of every thinking mind.

I will now, briefly as possible, cite a few instances wherein diseases of a serious character resulted from causes entirely preventable. In doing this I shall mainly confine myself to a period embraced in the last decade.

In the fall of 1875, I was called by Mr. C., of Bullitt County, to hold conference with my friend Dr. Johnson in the case of his wife, who was affected with what is termed typho-malarial fever. She was taken in September and had been sick two weeks. In a few days the husband was taken, and within the next two or three weeks six of the family—all but one—were in bed affected with the same trouble. During the time of this family affliction I visited them some sixteen times in conjunction with their family physician, Dr. Johnson, under whose able management they all recovered. The average time of each patient in bed was nearly six weeks. These were about the first patients coming under my observation affected with typho-malarial fever. Up to this time but little had been written in regard to it; in fact, about all I could find on the subject was a monograph by Surgeon Woodward, of the United States Army, based on his observations during the existence of the late civil war. In January, 1878, Surgeon Smart, also of United States Army, published a

paper on the subject of mountain fever, which he characterized as similar to what Surgeon Woodward termed typho-malarial fever. In April, 1878 (see *American Practitioner*), I published my observations in seventeen cases of this disease, embracing all I had seen up to that time. In that paper I reviewed the articles of Surgeons Woodward and Smart.

As is my rule in instances where I have several cases of disease at the same house of the same character, and due, in my estimation, to a local cause, I endeavored to learn, if possible, the source of the trouble in the present instance. The premises were situated on a high knob, some 250 feet above Salt River bottom, and heretofore comparatively exempt from malarial or typhoid diseases. The house was a frame, underpinned with rock, but loosely laid, and without guttering. The water from the roof settled, to some extent, under the house. In front of the dining-room at its entrance was the place where the general wash-stand stood, and at the door there was an accumulation of filth, resulting from sweepings, washings, etc. This mass was in a state of fermentation and decomposition. Under the house the ground was moist and funky, as evidenced by pushing a sharp stick into it. On investigating the source of water supply I found the spring some thirty feet below the house level, and subject to the reception of filth from above in time of rain falls. The stable and wood-yard were above, but not exactly in line of the spring, but no doubt some of the debris from them found its way into the spring.

At all events I regarded these local conditions, combined, as affording elements producing the severe out-break of fever. Now it will be readily perceived, even by the non-professional mind, how easily these causes could have been prevented. Had the house been guttered, and no filth allowed to accumulate around it, there would have been no cause for the trouble about the house; and had the spring been properly protected from

the ingress of filth by washings from above, the water supply would not have been contaminated.

In April, 1876, I was called several times in consultation to see two cases of typhoid fever occurring in the family of Mr. H., of Bullitt County. About the time these cases were convalescent the eldest daughter was attacked with the same disease. I was called to take charge of the case, not on account of any objection to the attending physician, but merely on account of a whim of her's, she having known me from childhood. This being the third case in the same house I regarded it my duty to discover the cause, if possible, in order to protect the remainder of the family. In examining the premises I found in one room, which might be called the ell to the house, the floor lying on the ground with the sleepers or joists buried in it. The house—a one story—was built on a hillside, near its base on Knob Creek, and the washings from the hill together with the sweepings of the floor, which was partially open, had completely filled the original space between the floor and ground. This was the cooking and eating room as well as sleeping apartment. Every time the floor was washed or scoured the water passed through it and commingled with the sweepings and debris from the hillside which, during warm weather, was in a constant state of fermentation, and in cool weather dampness was constantly present. In addition to this state of things under that room, there was a platform between it and the other part of the house which originally was on sleepers some distance from the ground, but now the whole of it was nearly buried in the washings from the hillside, together with trash swept under it through the floor.

I had the floors of both the ell and the platform taken up, and all the accumulations removed down to the original surface, and replaced by fresh gravel so as to cover the ground several inches. There were no more fever cases occurring in the family that season, nor has there been any malarial or ty-

phoid disease in the house since, that I have heard of.

In October, 1884, I was called in consultation to see a child of Mr. W., in Indiana, affected with diphtheria. In examining the premises I found a cellar under the house where vegetables (potatoes and cabbage) had been stored the previous fall.

In march, of 1884, was the great flood in the Ohio River, which filled nearly all the cellars on its banks. The cellar was not cleaned out, the water remaining until late in the season, leaving a damp, putrifying mass of debris. This no doubt was the prime cause of the development of diphtheria. There was but one child about the house, or in all probability there would have been more cases.

In August, 1885, I was called to see a little girl of Mr. P., of Meade County, this State, affected with dysentery. There were six persons in this family—man, wife, three children, and a brother. In four days after I saw the little girl, six years of age, and the oldest, the father, mother, and the other two smaller children were affected with the same disease, and the brother with intermittent fever. I now thought it advisable to examine the premises. Under the house I found a cellar which had partially caved in from the effects of the flood of March, 1884. Owing to a wash-out in the yard which led into the cellar, it had not dried out since the flood, but on account of a drouth in the summer of this year it had evaporated nearly to the surface of the accumulated filth, which was composed of sediment from the flood and vegetable debris. This mass was now in a state of ferment, with very offensive gas escaping through the surface of the filthy water. Owing to this dangerous condition of the premises, I had the family moved to a more healthy locality. The character of this outbreak of dysentery was the most severe and obstinate I had ever met with. The mother and two younger children died in spite of every thing that could be done for them in the way of treatment. There

were some untoward circumstances, independent of the severity of the type of the disease, which militated against the recovery of the mother and one of the children. She had the misfortune to abort during the attack, and the child, alluded to, resisted the exhibition of every dose of medicine, vomiting it up.

In August of the present year I was called to see a case of dysentery in the family of Mr. L., who lived at the foot of Muldraugh Hill on a small creek. This patient had a child about two months old, and had not fully recovered from her recent confinement. In two weeks several more of the family were attacked, and before the cause seemed to abate seven of the household had the disease. The baby died in two weeks after its attack. In examining the house I was unable to find any thing particularly unsanitary in the surroundings except a hog-pen close to the house. I then inquired about the water supply, which was from a spring some distance from the house, and on the bank of the creek. This spring, which had been flush up to July, had, on account of the drouth, become stagnant. On examination by microscope I found the water impregnated with considerable amount of organic matter. I had the family to suspend the use of this spring and obtain water elsewhere. The remaining four members of the family escaped.

I have enumerated several instances wherein local causes of a preventable or removable character have resulted in destructive consequences, which should come under the observation of both physicians and the public. Many more might be related, but time will only permit me to allude to one or two others.

Only four or five years since I attended a lady in confinement, who had, as a matter of convenience, selected a room on the ground floor for her lying-in chamber. This had been their parlor or reception room. She was apparently in good health, and did well up to the end of the second week, when

she felt so *smart* she left her room for a walk in the yard. While thus exercising she was taken with severe hemorrhage, and in a week from that time, after apparently becoming strong enough to sit up, she had a second attack. Soon after this well-pro-nounced chills supervened with very high reactive fever. In spite of every thing we could do she succumbed in two weeks after the first hemorrhage. On examination of the premises I found the sills of the house rotten and settled in the ground, so that the floor and sleepers were on and in the dirt. The house was unguttered and the roof-water settled under the old sills so that a constant moisture was kept up. This dampness and decayed wood no doubt produced such an impress upon the system of this patient as to produce a blood dyscrasia predisposing to hemorrhage as well as the production of fever.

Many years ago I attended a family in this county, which every fall was more or less affected with remittent fever, generally of a severe type. In looking for the cause of such annual affliction I noticed a pond in his stable lot on the southwest side of the house. This pond would be flush with water in the spring, and in the fall would become quite low, the margins exhibiting a mass of muddy deposit, the washings from the stable, and other surroundings. I spoke of the matter to the proprietor, giving it as my opinion that the pond was the cause of his yearly affliction, and advised him to drain it. It was his stock watering place, and so convenient he disliked to destroy it, but finally concluded to drain it. After that no more sickness of a malarial character afflicted his family.

The relation of these instances of local preventable causes of disease should be a lesson easily learned by every housekeeper. It should be the care of everybody to know that there is no confined dampness under the floors of their sleeping apartments. There is nothing more deleterious to health than sleeping over damp cellars or in rooms where

the floors are near to, or on the ground, damp from eves-water. Every housekeeper should guard against slops being thrown out of the windows or doors near the sleeping apartments, especially during spring and summer. Fermentation ensues and the generation of noxious gas results.

Every family who has a two-story house should have their sleeping apartments upstairs, particularly during the summer and fall months. The advantage of doing so has been frequently and fully demonstrated to all observing physicians who practice in malarial localities.

In estimating the great importance of preserving proper sanitary conditions in the environs of our dwellings, we should consider not only the cost of being sick but the value of a life. It is estimated that a working man averages one and a half weeks of sickness annually; and that during his life the loss of time from this cause amounts to about two years. The value of an adult life is estimated at \$750, and his annual productive power at \$95. It will thus be seen that it costs something to be sick besides medical attention, nursing, etc. When we regard disease and death in an economic point of view, we should be impressed with the necessity of observing proper hygienic surroundings.

"The annual death rate of adults in the United States is about 400,000," and any measures which would result in diminishing this rate in any significant degree would amount to a considerable sum in dollars and cents, besides a great saving to the State.

THE HYGIENE OF INFANCY.

BY DR. J. COMBY,
In *Le Progress Medical*.

The syrup of chicory is par excellence—the most successful purgative for nursing children. It is a popular drug sold not only by druggists, but also by herbalists; it enters largely also in the prescriptions of wise women, and matrons who pretend to know so much about the hygiene of infancy. This drug is a

syrup composed of the roots of rhubarb and chicory. It is better known as the "Syrup of Chicory." There are very few children, especially among the poorer classes, who have not paid tribute to this noted laxative. Often at birth, or the first few days following, sometimes for several weeks and months the unfortunate nursling is obliged to take, whether it will or not, enormous doses of syrup of chicory. At the first signs of digestive disorder in the new-born, this famous syrup of chicory is in universal use. When a child cries too often or too loud, the cause might be some error of diet causing copious, greenish, fetid stools. Some say in cases of colic the syrup of chicory relieves immediately. This remedy, that has such a reputation, is in such constant daily use that mothers and nurses are prescribing it to suit themselves; provided with this precious medicine these good women think they can sleep quietly. Have they not in their own hands a panacea that assures the health of their infants without the necessity of a physician? We have desired to look well into the merits of the syrup of chicory, and we have questioned all the mothers of families who come to the Dispensary of the Villette, all without exception have used syrup of chicory. Those infants nursed at the breast, it is true, have not taken so much of the drug a few days after birth, upon the advice of these wise women; later, strengthened by the mother's milk, there has been no excuse to give this purgative drug. This class of nursing infants resist victoriously the first attempts to dose them with this syrup of chicory. On the contrary, infants fed artificially, or fed too soon, die often the victims of the untimely use of syrup of chicory. We have seen recently a little girl of six weeks, who took a few days after birth two teaspoonfuls of syrup of chicory each day; she had continual diarrhea (green and fetid stools), and she had reached the last degree of athrepsy; that child nourished at the breast; athrepsy was due to no other cause than the abuse of the syrup of chicory pre-

scribed by a wise woman. A little boy, twelve months old, having gastro-enteric irritation had equally been subjected to syrup of chicory, two or three teaspoonfuls a day since he was six weeks old, always upon the advice of a wise woman.

A multitude of infants we have not mentioned have had intestinal troubles. Some gastro-enteritis, acute or chronic, have been provoked or aggravated by the abuse of syrup of chicory. The extremely delicate digestive tube of the nursing infant explains to us the dangerous results of this purgative upon new born infants. The wise women, instead of trespassing upon the great science of obstetrics that they know so little of, should not fear to make some incursions into the pathological domain that they know still less of. Some medical words they can recall from the mouths of the obstetrician, or interne at the "maternite," render them presumptuous and dangerous for the sick who are confided to them. We see them (contrary to law) holding consultations, practicing openly gynæcology, etc. It is time that these prejudicial abuses of the public health should end, and that our obstetricians should take this matter in hand and do their duty to poor suffering humanity.

Speaking of this it is necessary to put families on their guard against the incompetency of these women upon medical matters and the hygiene of infancy. We must not cease to muster up all our forces at the Villette Dispensary against the dangerous doctrines propagated by these wise women. These are the women who prescribe to such an extent many doses of the syrup of chicory. These are the women who, under any foolish pretext, authorize and encourage artificial feeding. These are the ones who impose upon a credulous and ignorant population; who also encourage premature feeding with all the known dangerous substitutes for mother's milk. It is of great importance in the interests of the poor classes, and of our entire population, that physicians can not be too positive or too urgent to place

these charlatans and other impostors of both sexes before the world in their true light. For the victims of these impostors, when they are responsible adults and should know better, we have but little sympathy; our advice and warning is of little consequence to them. But the poor little irresponsible innocent infants, is it not necessary to protect them against the horrible practices of these wise women, who endanger not only their health, but their lives? Is it not necessary to protect them against the ignorance and weakness of their parents who confide them to these humbugs? The physicians alone in the hospitals, dispensaries, and other charitable institutions, can combat the prejudices, errors, abuses, that are serious obstacles in the progress of the health of infants. The physicians alone should attend to the regulations of the nursing and feeding of the new born infant. The physician should frown down the popular use of all those drugs that make the poor infant suffer and die.

Out of the number of these murderous drugs we have selected the syrup of chicory, because it is the most used and the most fatal. We have searched in vain for any cause to justify the use of this purgative. If a nursing infant has the diarrhea, with stools green and fetid, the remedy is in the change of diet; purgatives aggravate the disturbance. If they suffer from constipation, more or less opiates would regulate the defective digestive organs; as a last resort, one should use some emollient injection. It will always be easy for the nursing infant to avoid taking any thing which would irritate the digestive tube. If there is one thing that should be respected at this tender age, it is the stomach—that organ which is the source of assimilation and of life. It is the case that calls forth the old adage, "*maxima debetur puero reverentia*." All that may be given to the infant besides the liquid of life drunk from the mother's breast is bad, and should be condemned by the laws of hygiene. It is necessary to except of

course known diseases not provoked by any error of hygiene.

Once more, only milk should enter the infant's stomach for twelve months. It is most imprudent to introduce any thing but mother's milk. The cause of the immense majority of the diseases of infancy at this age, the cause of athrepsy which kills infants by thousands, the cause of rachitis, the cause of scrofula, etc., etc., is through ignorance or contempt of that axiom—ignorance of families, ignorance of these wise women. We await the new generations of women, more enlightened, more scrupulous, able to dissipate the errors of their elders in the popular classes. It is necessary that physicians fight with all their energy, and all the devotion they are capable of, ignorance and weakness which have so many victims in our infantile population. Not only can physicians, by inspecting medicines of nurses, be of immense service to the protection of infancy, but also can physicians, who have not official missions, assist their confreres in that generous campaign calling forth the efforts of the whole medical force or body.

To resume these considerations we wish to say that the syrup of chicory should be banished from the nursing infant. This purgative, employed to such an extent, is as dangerous as it is popular; intended to ease colic, it provokes it; it irritates the stomach and the intestines; it produces diarrhea at length; it produces athrepsy with all the cortege of these accidents or dangers. This drug deserves then all the frowning down upon possible; in fact, all drugs should be abolished when the child is so young. A good part in the exaggerated mortality of our infantile population ought to be attributed to the use of syrup of chicory, and of similar remedies, in connection with artificial feeding, as the principal causes of gastro-enteric irritation and athrepsy.

THE dreadful effects advertised of cocaine sounds like "the blight of youthful indiscretion" in the quack's advice to young men.

BOOKS AND PERIODICALS.

QUIZ COMPEND:
DISEASES
OF THE EYE,
INCLUDING
REFRACTION,
AND SURGICAL
OPERATIONS.

BY

L. WEBSTER FOX, M.D.

*Ophthalmic Surgeon to the
Germantown Hospital,
Clinical Assistant Oph-
thalmological De-
partment, Jefferson
Medical College
Hospital, etc.;*

AND

GEORGE M. GOULD,

A. B.

Philadelphia: P. Blackis-
ton, Son & Co., 1012 Walnut
St. 1886. Cloth, Duodecimo.
Pages, 148. Price, \$1.00.

The purposes of this compend are to give the student the most notable points in the diagnosis and treatment of ocular disorders, both pathological and refractive, and to place in concise form for the convenient reference of the general practitioner, such outlines of the science as may often spare him much chagrin and his patients much suffering.

At page twenty, in considering the vari-

ous systems of grading lenses, we learn that, "lenses were formerly numbered according to the radius of curvature of the surfaces in inches, a lens with a two inch radius being taken as the standard; consequently, a lens of a five or ten inch radius had one fifth or one tenth the refracting power of the standard. This, as will be seen, necessitated the constant use of fractions to express the power of a lens, especially disadvantageous in the weak glasses most in use; moreover, the inch was different in every country. In thus numbering lenses it was taken for granted that the refractive index of the glass used was 1.5, but it is found that the index is always greater and were more properly estimated at 1.53. To avoid all these difficulties the dioptric system has been adopted. A weak glass with an actual focus of one metre is taken as the standard, and called one Dioptry. Two lenses of this power, or one lens with twice the refractive power of the standard, has a focal length of half a metre. The focal length is always easily found by dividing 100 cm (about 40 inches) by the dioptric number of the glass; thus a lens of 5 dioptrics would have a focal length

of eight inches, etc. The table on opposite page, by Landolt, sets forth perspicuously the differences between the systems." Now it is indeed remarkable that Fox and Gould should adopt Landolt's table, full as it is of errors. The unit of refraction, for lenses, is obtained by grinding a piece of crown glass so that its radius equals the quadrant of a sphere. For convenience, in grinding spectacle lenses, the unit represents the quadrant of a sphere *about* two inches in diameter, and forms a disc about $1\frac{3}{4}$ inches in diameter. This disc is well suited to the purpose, as it may be easily cut into an ovoid for the spectacle frame. As the quadrant of the sphere is the unit, half the unit represents a lens, not of two inches focus, but of half the refracting power of the unit. In this way any desired fraction of the power of the unit may readily be obtained, so that, in such a system of gradation, any desired extension of the focal point may be had, and a well-regulated series of inter-focal spaces be made from the unit to any extent within the range of the refrangibility of light. As the metre represents no fixed and universally agreed limit, and the attempt to establish it as a unit of refraction by a fixed focal distance, has lead to great confusion, it should be abandoned at once. The idea of grading lenses by dividing an indefinite space into definite focal points is too absurd for argument. The practice of grading window-glass spectacle lenses so many inches in focal length has never been adopted in any scientific system of optics. It is a great misfortune to cast aside the great laws of *Euclid*, *Huygens*, and *Kepler*, in an attempt to popularizing an exact science like that of optics.

The ordinary student will hardly find either time to go over the tedium of studying out the principles of any practical system of grading lenses, or enough interest in so abstruse a subject to follow Fox and Gould through the well-written and handsomely illustrated fifty-two pages of this manual, devoted to the subject of refraction.

The work is divided into four parts as follows: (1) *Refraction of the Eye*; (2) *Functional Disorders Affecting Vision*; (3) *Diseases of the Eye*; (4) *Surgical Operations, Instruments, etc.* The concluding portion is devoted to *clinical hints and maxims*. Some of these are so apposite as to deserve reproduction. Third hint: "There can be no accurate and exhaustive diagnosis of refractive errors without the use of a mydriatic." Fourth: "There can be no accurate and exhaustive diagnosis of refractive errors by the ophthalmoscope alone." Sixth: "Asthenopia is a labor grievance, either a strike for fewer hours of work a day, or a demand for better tools." The student and practitioner alike will find this a pleasant and often a profitable companion. It bears the marks of daily work in the consulting room rather than the library, and shows more chips from the shop than marks of the midnight oil, or touches of professional authorship.

THE UNIVERSITY COLLEGE GAZETTE.

The Amalgamated Societies of University College, London, undertook, under the leadership of Prof. Henry Morley, on the first of October, a novel and important literary enterprise. It is known as *The University College Gazette*, "edited by Mr. John Gower, a person of literary tastes, after whom the street in which the college stands is said to have been named." Mr. Ernest Hart, in noting this new enterprise, suggests that, "as Mr. Gower labors under the disadvantage, as an editor, that he is compelled to date his letters from the Church of Saint Mary Overy, where he was buried nearly five hundred years ago, it is safe to conjecture that the energetic principal of University Hall will assume the duties of acting editor, and that, therefore, the new magazine will not fail for lack of zeal, or of the speaking of plain truths in vigorous English."

The medical profession in the United

States has long felt the importance of journalism as a means of disseminating truth, and the discussion of questions of a fraternal nature; and it has become annually more apparent that organizations make a better showing of professional progress than any amount of individual effort, however able and earnest. We hope the brethren in Kentucky will not be slow to exhibit a due appreciation of this work, and bear testimony to their own literary tastes in a liberal number of subscriptions to the official organ of the Amalgamated Societies of University College, London.

HOW WE TREAT WOUNDS TO-DAY. A TREATISE ON THE SUBJECT OF ANTISEPTIC SURGERY, WHICH CAN BE UNDERSTOOD BY BEGINNERS.

BY
ROBERT T. MORRIS,
M. D.,

*Late House Surgeon to
Bellevue Hospital, New
York, etc.*

Second Edition. New
York and London: G. P.
Putnam's Sons, The Knicker-
bocker Press, 1886. Cloth,
Duodecimo. Pages, 165.
Price, \$1.00.

The first edition appeared in mid-summer, 1885. It was so popular that a year's time demanded another, which the author has given us in a slightly revised and amended form. The work is written in good English, and is well adapted to the uses of beginners in antiseptic surgery. Of course those croakers who make no pretense at experimental inquiry into the subject of sepsis will try to excuse

their own ignorance on the plea that the microscope is a toy, and the teachings of mycologists heretical. Why, says some good, old sawbones, these crazy mycologists actually believe in Evolution! The bigoted, old foggy bone-setter, raves against "*the bug theory of disease*" and denounces Dr. Morris as the partisan author of a contemptible book. Now, in truth and justice, we must say that Dr. Morris has written a valuable book, which commends itself to every intelligent reader, and which no student of the *ars chirurgica* can afford to be without.

CORRESPONDENCE AND SOCIETIES.

THE McDOWELL
MEDICAL
SOCIETY OF
KENTUCKY.

[Stated meeting at Henderson, Kentucky, October 20 and 21, 1886. Reported for PROGRESS.]

The Society convened at 10:30 A. M. in the Council Hall, in the City of Henderson, Kentucky, on Wednesday, 20th of October, continuing two days. Attendance,

good. Dr. Arch Dixon, of Henderson, President of the Society in the chair.

Dr. J. A. Southall, Secretary, read the minutes of the previous meeting.

Dr. B. F. Eager, of Hopkinsville, read a well-prepared paper on the Treatment of Insanity, dwelling on the importance of cheerful surroundings, and conversation, such as is calculated to amuse and interest, and thus remove the thoughts of patients from their maladies; rather to humor any harmless vagaries, than by positive contradiction to incense and excite the patient.

The doctor is not in favor of violent or harsh coercion or restraint, except in very violent cases, as a measure of safety to themselves and others. As to medicine, he advocates the use of hydrate of chloral in cases of insanity characterized by hyperemia of the brain, the bromides being often sufficient in milder cases of the same condition. In the acute hyperemic cases, where the obtaining of rest and sleep are imperative, he uses the chloral in free but safe doses, and deprecates the use of opium or any of its preparations in these cases. Proper and timely attention to the general health, and removal of any palpable disturbing causes was also advocated.

There was not much discussion on this paper, the views of Dr. Eager seeming to be in accord with those of the Society.

Dr. J. P. Thomas's paper on the Therapeutics of Ergot was a very suggestive one, and was mainly derived from the doctor's personal experience in the use of this important drug. In addition to the well-known uses of ergot by the profession, Dr.

Thomas gave cases illustrating many *new* applications of the medicine in various diseased conditions, in which it had rendered efficient service in his hands in combination with other remedies; for instance in diarrhoea, with morphia, etc. Among a variety of diseases in which the doctor had used it, he mentioned its beneficial effect in epilepsy.

In the discussion on this paper, a general skepticism of its value in this disease seemed to prevail, unless, indeed, the doctor used it in combination with the bromides. So in regard to the use of ergot in diarrhoea. Several members thought that the morphia which Dr. Thomas gave with the ergot was probably the active agent. The discussion brought out the fact that a number of physicians present were in the habit of giving a moderate dose of ergot in cases of labor, about the time the head of the fetus is delivered, with a view of promoting contraction of the uterus, and preventing post-partum hemorrhage, expelling clots, etc., and thus preventing after-pains, putrefaction of retained debris, and antogenetic septicemia, etc., while others deprecated the use of the drug at all, relying on Credes's compression and other means to accomplish the same purpose.

Dr. Owen, of Evansville, said that his obstetrical cases, as a general thing, were under the influence of chloroform at the time of the delivery of the head, and he usually had no trouble requiring ergot.

Dr. Conway, in reply, deprecated the use of chloroform indiscriminately in labor. Said it undoubtedly caused conditions favorable to inertia and hemorrhage, apart from the danger, often impossible to foresee, of sudden and unexpected death.

Dr. Owen called attention to the fact that still-births had become much more frequent in Evansville since the midwives had adopted the habit of administering ergot in all the cases of labor they attended; that one midwife doing a large practice in that city among healthy German women was in

the habit of giving ergot tea in all cases from the commencement to the close of labor.

Whatever differences of opinion existed among members as to the use or abuse of ergot in obstetrical practice, it seemed to be generally admitted by the Society that the drug was efficient in all the hemorrhages, sclerosis of the cord, cerebro-spinal meningitis, the congestive stages of pneumonia, etc., but that its effect in epilepsy was perhaps imaginary.

Dr. Owen's remarks on, and illustrative cases of impaction of the colon, were of special interest and importance, and attracted the profound attention of the Society. The Doctor called the attention of the Society to the fact that many cases of illness, due to this condition, had been overlooked perhaps by obscurity or mildness of the symptoms, and had resulted in death, which by proper management might almost certainly have been averted and life preserved. He said that an actual diarrhoea may exist when the colon may be filled to repletion, a passage for thin fecal matter being tunneled through the center or at the sides of the impacted fecal mass; that purgatives and powerful cathartics may, and often do fail to move the obstructing matter, and even enemas given in ordinary quantity fail to remove it, and in this way the condition may be entirely overlooked or discredited by the physician, till death may be the result.

The Doctor related several very interesting cases illustrative of the difficulty of diagnosis in such cases, in one of which, by the repeated use of the peculiar syringe of Dr. Owen, a number of miscellaneous articles of food, which the patient affirmed positively that he had not eaten for many months, perhaps two years, were brought away from an impacted colon with great relief to the patient.

The reporter does not at present accurately recall the points in Dr. Owen's graphic description of the symptoms in the

cases he related, but remembers that they were often obscure, many of them not pointing to the bowel at all, but in the diagnosis the Doctor mentioned the inelastic, doughy feel of the bowel through the abdominal parctes, the grooves to be felt in the fecal mass, the indentations to be made by deep pressure, and their permanency when made, etc. The Doctor spoke of the large special syringe which he uses in such cases, and particularly of the position in which the patient is placed to receive the injection; the (genu-pectoral) using the warm water by the half gallon or gallon, and the repeated persistent use of it, and of the invariable success of the operation thus conducted. The reporter believes that many members of the profession may be able to recall one or more such cases as Dr. Owen describes.

Dr. S. C. Smith read a paper on Enterocolitis, which was fully discussed by the members of the Society.

Dr. Smith condemned the indiscriminate use of mercury in this disease, laying greater stress on hygienic management and proper dietetic regulation than on any treatment by drugs. Several gentlemen took issue with the Doctor on his condemnation of mercurials, and several stated that they had found great benefit result from broken doses of calomel and Dover's powder, or the gray powder, and ipecac and opium. The discussion developed the fact that several members had noticed the unusual activity of specimens of gray powder, having seen it act as an active cathartic in moderate doses, attributable as supposed to some chemical change in the mercury by which a minute portion of bichloride may be formed. It needs further investigation, and more caution in the use of any untried sample of the drug.

Dr. Johnson, of Zion, Henderson Co., Kentucky, read a description of some quite unique cases of cerebro-spinal-meningitis. In the onset of the cases a severe pain would occur in some muscle, limb, or joint, resem-

bling rheumatism. Temperature high, opisthotonos not present, or rigidity, all the cases proving fatal. Dr. Johnson used quinine, morphine, etc. In the discussion some objected to the morphine, and others advocated its hypodermatic use.

Dr. A. R. Jenkins reported a case of supra-orbital neuralgia of ten months' standing relieved by section of the supra-orbital nerve, about half an inch being removed, and the supra-trochlear divided. About thirty per cent of these cases are permanently relieved. Discussed by Drs. Owen, Dixon, Luckett, and Powell.

Peritoneal Surgery, by Dr. E. H. Luckett, of Owensboro, elicited a warm and interesting discussion. The indications for laparotomy in gunshot wounds of the intestines receiving special attention, and was ably argued, pro and con.

Several other papers of much interest were read, and there was a general regret at the absence of some prominent medical men from abroad who had promised papers for the meeting.

The next meeting of the Society will be held at Owensboro, in May, 1887.

AMERICAN GYNECOLOGICAL SOCIETY.

Eleventh Annual Meeting,
Held in Baltimore, Md.,
September 21, 22, and
23, 1886.

[From the *Medical Record's*
Report.]

The Society convened in the hall of the Johns Hopkins University, and was called to order at 10 o'clock by the President, Dr. Thad. A. Reamy, of Cincinnati, Ohio. The address of "Welcome" was delivered by Dr. H. P. C. Wilson, of Baltimore, who referred to the honorable distinction which the Society had won, and in the name of the citizens of Baltimore, in the name of her women, in the name of the general profession, and in that of the resident fellows, welcomed its members within her borders whenever they might feel inclined to come.

Dr. H. P. C. Wilson, of Baltimore, then read a paper entitled "The Division of the

Cervix Backward in some forms of Ante flexion of the Uterus with Dysmenorrhea and Sterility," in which he advocated the adoption of this procedure in the following classes of cases:

First, those of ante flexion of the uterus with elongated and indurated cervix, when the body is bent upon the neck, or the neck upon the body, or when they are bent upon each other, thus forming a more or less acute angle at the internal os.

Second, in such acute ante flexion as when the cervix is hypertrophied, blue as a mulberry, and its tissue dense, almost like cartilage.

Third, those cases in which at the internal os the encircling band gives to the finger the feel of a strong cord between the neck and the body.

In the cases of ante flexion when the knife should be used all the above lesions are coincident, with more or less diseased Nabothian and utricular glands and diseased mucous membrane, all of which must be cured by proper after-treatment. He regards the cut as no more dangerous, when made with proper precaution, than when made elsewhere in the body, and believes it to be the most efficient method of rectifying ante flexion of the uterus. The patient should be allowed to thoroughly recover from the operation before any intra-uterine medication is begun, and then the best consists in the local use of Churchill's tincture of iodine. The patient should keep quiet in bed for two weeks, with almost no treatment, after which manipulation exceedingly gentle, with sound dilatation, etc., may be resorted to for the purpose of keeping the canal open sufficiently.

The paper was discussed by Dr. T. A. Emmet, of New York, who thought that he would have been willing, fifteen or twenty years ago, to have endorsed every thing which Dr. Wilson had said, for he had no doubt that he had done as much harm as any one by the operation, a fact which had caused him to change his opinion concerning

it. The operative procedure is not free from danger. He had known at least twenty deaths to occur from it. But, as Dr. Wilson had said, if all pelvic inflammation is first removed, very likely but little harm will be done by the cut; but also, no good will be done by it.

Dr. J. R. Chadwick, of Boston, had been disappointed with regard to the results of the operation when performed for either dysmenorrhea or sterility.

Dr. W. H. Baker, of Boston, thought that Dr. Wilson should be congratulated on account of his success in the performance of this operation, and it seemed to him that the paper showed very conclusively the difference in experience which gynecologists might have in its performance. Since he performed it first he had been led to perform it less and less, and had limited it to cases in which there is lack of development.

The paper was further discussed by Dr. Fordyce Barker, of New York, who was the first to bring one of Simpson's uterotomes to New York, and which Sims used in his early operations; by Dr. John Scott, of San Francisco, and Dr. Howard, of Baltimore, who had resorted to all methods of incision, and had used all instruments devised for the purpose, and was not wedded to either method or instrument exclusively. With regard to the frequency with which the operation had been performed, Dr. Wilson probably had done it ten or fifteen times to his once. In cases where the vaginal portion of the cervix is very long, producing a small anterior and a large posterior cul-de-sac, he performs the operation of making the posterior incision when all other measures fail to give relief. Performed as it should be, there was not more danger than with other operations of similar magnitude, and a certain proportion of patients can be cured by it.

The discussion was closed by Dr. Wilson, who said that he had not heard any thing in the discussion which convinced him that in properly selected cases division of the cervix

was not the best thing that could be done for the patient.

Dr. R. Stanbury Sutton, of Pittsburgh, then read a paper entitled "Another Modification of Emmet's Cervix Operation." Last year he directed the attention of the Society to a modification of Emmet's operation, which had for its object the preservation of the cervix in cases in which the typical operation was not possible, and he now asked attention to a further method of circumventing the same difficulty. He related the history of the case in which he had performed it, with such success as to convince him that it was worthy of further trial. The angles of the laceration were completely filled with hyperplastic tissue, and the cervix was of almost cartilaginous density. With a pair of strong scissors, one blade thrust into the cervical canal, he divided the cervix back to the full depth of the inguinal laceration, and then with a double-edged knife made incisions across the central lumen of the internal os and denuded the four surfaces in such a manner that when they were brought together there were left two ridges of tissue remaining, surmounted with a thin layer of mucous membrane; these stood above the surface to the height of about seven millimetres, and the face of the crest was about three millimetres wide. The extremity of these strips at the edge of the incision turned out, the object being to preserve the contour of the future os and cervix.

Dr. Emmet, of New York, was struck with the ingenuity of the procedure, a device which required practice to determine whether it could be made applicable to a large number of cases. As a rule in such cases, when there was a condition very much like that present in an old tonsil, he believed that it was better surgery to amputate a portion, and cover the stump with vaginal tissue.

Dr. G. J. Englemann, of St. Louis, thought that it was very much the same position as was taken by Dr. Sutton last year, reached by a somewhat different method.

He did not regard the strip of mucous membrane as of very much importance, as the introduction of a piece of fine cat-gut would keep the canal open all that was necessary.

The paper was further discussed by Dr. Baker, of Boston; Dr. Scott, of San Francisco; Dr. Dudley, of New York; Dr. Chadwich, of Boston; and the discussion was closed by Dr. Sutton.

A paper by Dr. Elwood Wilson, of Philadelphia, on "The Treatment of Recent Lacerations of the Cervix Uteri," was read by the Secretary, Dr. Joseph Taber Johnson, of Washington. It contained brief reports of six cases of recent laceration treated successfully by the local application of nitrate of silver, every five days, of the strength of a drachm to the ounce of water. He had never found the method successful in chronic cases. In many cases nothing but Emmet's operation could restore the parts to their natural condition, and while it was one of the most valuable additions to gynecological science which had been made, still many had been carried away by its brilliancy, and it had been performed when it was unnecessary. Ten or twelve days after confinement examine, and if a laceration exists, thoroughly cleanse and dry the surface, and carefully paint it over with the solution mentioned. If the fissure be discovered immediately after labor, treat the parts antiseptically until the local use of the silver is resorted to, using iodoform bacilli introduced into the cervix, irrigation with bichloride solution every third day, and antiseptic napkins.

Dr. Barker, of New York, regarded the paper as practical in one particular especially, namely, the cases illustrated the fact that it was unnecessary to resort to operative interference at once after labor has been completed.

Dr. Emmet, of New York, believed that the only condition which required immediate interference after labor was the occurrence of hemorrhage.

The paper was further discussed by Dr. Scott, of San Francisco, and Dr. Barker,

after which the Society adjourned to meet at 3 P. M.

AFTERNOON SESSION.

The first paper was read by Dr. T. A. Emmet, of New York, entitled "Pelvic Inflammations—Cellulitis Versus Peritonitis." The central point of the paper was that the more circumscribed the inflammation seemed to be, unless a pure cellulitis, the more serious would be the consequences if its existence be practically ignored. An apparently limited inflammation is to be feared, because it almost always started in the peritoneum, and is nearly always the remnant of a more extended one. It has been held that, as a rule, there was but little evidence of previous inflammation at operations for removal of the ovaries and tubes, and his own experience had confirmed the accuracy of the observation. The question had been raised as to the existence of pelvic cellulitis, since its products found afterward are so few. But the products of cellulitis rapidly clear up, and the walls of the passages are separated as by lateral traction, and if the inflammation stops short of pelvic abscess, nothing can be detected by the fingers except a few bands running in different directions. By degrees the surrounding connective tissue is drawn together by its own elasticity and fills the space unoccupied.

If the inflammation is below the dip of the peritoneum, there is nothing to mark the site of extensive disease except a small scar. Connective tissue never regains its integrity after having been once inflamed. If the surrounding connective tissue can supply the loss, the part will return to its former shape and the injury become unappreciable. On the other hand, if the inflammation is more extended, or the tissues break down into abscess, the injury can be repaired only by adhesive inflammation of the parts involved. When cicatricial contraction occurs after healing by granulation, the contraction is not due so much to loss of tissue as to the *absence* of contraction from surrounding

connective tissue destroyed before the scar was formed.

Dr. Emmet then referred to the recent paper by Dr. H. C. Coe, of New York, and spoke of the relation of gonorrhea to pelvic inflammations. Reference was then made to the operation for removal of the uterine appendages, which he believed had been done in New York with as good results as had been obtained abroad, and, furthermore, that if the true proportion of deaths could be ascertained the rate of mortality would be fearful. It should be done only as the last resort, and after all other means have failed to afford relief. The operation doubtless fills an important place, but its usefulness must be restricted or the good name of the profession will suffer in the future.

Dr. Robert Battey, of Rome, Georgia, regretted that he was looking upon one side of the shield, while Dr. Emmet was looking upon the other. From his own standpoint he regarded most of these serious inflammations of the pelvic cellular tissue, which are so destructive in their course, as dependent upon disease of the ovary, either cystic or cirrhotic. With reference to the frequency with which removal of the ovaries and tubes was done at the present time, he was largely in sympathy with Dr. Emmet; he thought that it was performed too often. He did not believe that in every case of organic disease of the ovary extirpation was required. He had seen cases where the operation had been refused, and the result had been rather gratifying. But he had performed it also with exceedingly gratifying results. The general health of the patient must be broken down; it must appear that there is no other practical remedy; it must appear probable that extirpation will eventuate in cure—to justify the operation.

Dr. R. Stansbury Sutton, of Pittsburgh, continued the discussion, and exhibited several specimens which he had removed with the result of curing the patients. He believed that the blame should not be attached to the operation, but be placed upon those

who were performing it without having had the requisite amount of experience to enable them to perform it properly.

Dr. S. C. Busey, of Washington, said that if more regard was paid to the histological anatomy of the pelvic tissues there would be less disagreement in pathology. The cellular tissue is a vast lymphatic sac, as also is the peritoneum, and it seemed to him that the whole subject could be simplified by classifying these affections as pelvic lymphangitis, varying in different cases.

With reference to removal of the uterine appendages, he thought that too many operations had been performed, and perhaps there were too many operators undertaking to do it. Still he believed that diagnosis should be based upon something besides moral, ethical, or social considerations.

The discussion was continued by Dr. Englemann, of St. Louis; Dr. Scott, of San Francisco; Dr. Mann, of Buffalo, and Dr. Wilson, of Baltimore.

Dr. John C. Reeve, of Dayton, Ohio, then read a paper entitled "A Case of Abdominal Section for Chronic Suppurative Peritonitis." The detailed history of the case was given, which occurred in a woman who lived as though she was married. It was a case of abdominal disease. Pus was discharged by the rectum. After declining laparotomy, offered when it was evident that she could not be cured by other treatment, she finally asked for the operation. The patient recovered from it, and was doing very well, but chronic kidney disease was present and doubtless would terminate fatally before long. A fecal fistula remained, from which there was an occasional discharge, although passages per rectum occurred almost daily.

The paper was discussed by Dr. Scott, Dr. Goodell, of Philadelphia; Dr. C. C. Lee, of New York; Dr. Sutton, Dr. J. Taber Johnson, of Washington, and the discussion was closed by Dr. Reeve.

The society then adjourned to meet at 10 A. M., Wednesday.

A banquet was given at the Hotel Ren-
nert in the evening by the Baltimore Gynecological and Obstetrical Society.

THE BEECH
FORK MEDICAL
SOCIETY.

Stated meeting at Bardstown, Ky., Oct. 19, 1886.

[Official Report for PROGRESS, by EDWARD KELLY, M. D., Sect'y.

The regular quarterly meeting of the Beech Fork Medical Association was held here to-day. Because of the late arrival of members there was no morning session. At

one P. M. the Society convened with Dr. T. D. Williams, President, in the chair, Dr. E. Kelly, of Lebanon, Secretary.

The regular business of the meeting was opened by Dr. J. M. Ray reading a paper on "Ear Diseases During the Exanthematous Fever of Childhood," pointing particularly to the inflammatory affections of the middle ear complicating these diseases. The essayist urged the importance of attention during the acute stage of these troubles. He favored early paracentesis in serious effusion into tympanic cavity, and had usually found the insufflation of a powder containing resorcin to give good results in the suppurative inflammations. The paper was discussed by Drs. McChord and Crawford.

Dr. T. D. Williams read a report of a case of "Puerperal Convulsions Commencing before the Completion of Labor—Forceps Delivery and Recovery of Mother and Child." The remedies relied upon were chloroform, chloral, and brom. potass. with a diuretic after the attack. Paper was discussed and verbal report of cases given by Drs. Smith, Crawford, and McChord, all of whom concurred in the belief that puerperal convulsions were due to a faulty eliminative action of the kidneys, and might usually be prevented by proper attention to these organs before confinement.

Dr. McChord asked for an expression from the Society on the use of ergot in labor. Dr. A. Crawford favored the use of ergot as an oxytocic in the last stage of labor, but when used in the early stages it

resulted in but little benefit. Dr. A. Smith thought it should be given in early stages of labor only when there was decided uterine inertia, because of danger to the child, but favored its use in latter stage when required. Dr. Hill gave ergot when required after os was fully dilated, and saw no bad results. Dr. Gore was but little in the habit of giving ergot but favored its use in latter stages.

Dr. Kelly thought the combination of chloral hydrate with ergot prevented the tonic contraction of the os and cervix uteri, and thereby materially lessened the danger to the child, while the oxytocic power of the drug was not interfered with. Had given this combination in rigidity of os in primipara with good results.

Dr. Williams thought ergot might be given without risk in any stage of labor when clearly indicated, if it be given with caution and judgment. Dr. McChord thought the administration of ergot might cause hour-glass contraction of the uterus, or might asphyxiate the child, or when given in latter stage it might cause retention of blood clots, thereby increasing the danger from septic diseases. He is therefore cautious in the administration of ergot in any stage of labor, except where there is danger of excessive hemorrhage.

The election of officers for the ensuing year resulted as follows: Dr. W. W. Ray, of Springfield, President; Dr. R. C. McChord, of Lebanon, First Vice-President; Dr. A. Crawford, Bardstown, Second Vice-President; Dr. E. Kelly, Lebanon, Secretary; Dr. B. F. Hill, Bardstown, Treasurer. The Society then adjourned to meet at Springfield on the third Tuesday in January, 1887.

If the societies do not soon quit discussing ergot, PROGRESS will feel at liberty to cast at least a part of the blame on the persistent drummer whose samples of ergot and cod liver oil have become an intolerable nuisance. What does an ophthalmic surgeon want with ergot and cod liver oil?

CENTRAL
KENTUCKY
MEDICAL
ASSOCIATION.

Stated meeting at Danville,
October 20, 1886.
[Reported for PROGRESS.]

The president, Dr. Fayette Dunlap, in the chair. The discussion was introduced by Dr. L. S. McMurtry, with a paper entitled "A Review of Uterine Therapeutics." (See page 221).

Dr. W. C. Webb, of Brayantsville: My experience in the use of pessaries is more satisfactory than that of the essayist. In a case of prolapsed uterus recently under my observation the patient experienced great relief from adjustment with a pessary, and after getting up used a McIntosh supporter with great advantage. Indeed she was unable to walk around and be on her feet without this instrument. I desire to say a word regarding the method of divulsion or dilatation of the cervix uteri, which Dr. McMurtry says, and correctly too, must be used with discrimination. This method has had an earnest advocate in Dr. Wm. Goodell. In a case of menorrhagic dysmenorrhea, with reflex vomiting, I used the dilator, and thereby entirely and permanently relieved my patient. There were no inflammatory or other bad symptoms following the operation, and the relief of pain, nausea, and vomiting was prompt. The periods soon became regular and the general health was restored.

Dr. Hawkins Brown, of Hustonville: I regard the paper as furnishing the most advanced as well as the most judicious view of gynecological therapeutics. I believe we need more conservatism in this line of practice, and that there are in many quarters too much haste and zeal in adopting surgical and heroic measures. I listened with careful interest to the address of Dr. Gordon, of Portland, Maine, at the last meeting of the American Medical Association, and do not hesitate to say that the readiness with which operations upon the uterine appendages were advised is to be deprecated. Such practice is unnecessarily heroic, and is dangerous. I desire to emphasize Dr. McMurtry's

remarks upon the importance of careful discrimination in the diagnosis of uterine and pelvic disorders. Dr. H. O. Marcy, of Boston, exhibited upon the screen at the National Association's meeting at St. Louis, recently, a series of specimens of so-called ulcerations of the cervix, and demonstrated that these lesions were not ulcerative in character. Indeed the indiscriminate cauterization of the os and cervix, as practiced by Bennett, and endorsed by Henry Miller and others, was based upon altogether erroneous ideas as to the nature and pathology of the uterine lesions. The most common error of the average practitioner is in hasty and careless diagnosis.

Dr. Wm. A. Brown, of Parksville: There is one condition treated in the paper in which I have for a long time felt much interest. I allude to Emmet's operation for laceration of the cervix. In many cases symptoms depending upon other and remote causes are attributed to such slight lacerations as occur in almost every uncomplicated labor. These lacerations are usually repaired after labor without any treatment, and when they fail to heal, stimulating applications will often accomplish the desired result.

Dr. D. C. Tucker: The views of the essayist meet my cordial approval. I would especially refer to the remarks of the essayist upon the use of pessaries. In my hands pessaries have more frequently failed to accomplish the desired purpose than they have succeeded. I believe the relations of constitutional disease and dysrasia have not received due attention of late in uterine pathology and therapeutics. Very often the lesions found in the uterus, and its appendages, are the local expressions of constitutional disease. For the successful treatment of these affections local measures should be conjoined with attention to the patient's systemic condition.

Dr. J. M. Meyer: There is no branch of medical practice in which fashion has exerted such influence as in the treatment of the diseases peculiar to women. The bane

of modern practice is the great deference paid to authority and to the disposition to overestimate the range of application of all new methods of treatment. I would urge the necessity of more self-reliance and independence of opinion in the management of these affections. I believe the operation for removal of the ovaries and tubes has been carried to inexcusable excess. Scarcely any society meets in our large cities but several specimens of this kind are exhibited, and almost every journal we open contains a reported case. The operation is a grand one in its proper sphere, but that sphere is a limited one. In an extensive practice, pursued through many years, I have studied these cases in which the operation is so often hastily performed. The lesions and symptoms attributed to diseased ovaries and tubes are often dependent upon other, and perhaps remote causes, and the patients recover without operation. At present I am aware of only one case, and that is the only one I have seen for several years, in which spaying would be a judicious course to pursue for the patient's relief. I believe the increase of wealth and luxury in the country, and modern habits of life, are potent influences in impairing the vigor of our women, and, at the same time, are prolific causes of disease.

Dr. Caspari : I must take issue with the essayist, who advocates instrumental dilatation of the cervical canal, instead of the use of sponge-tents. I prefer the sponge-tent as a milder method, and quite as effective. I endorse the views expressed regarding pessaries.

Dr. Dunlap, who had an opportunity to carefully investigate Dr. Goodell's method of divulsion, gave a full account of the procedure and of the character of complaints to which it was applicable. In the first place it was more often used for dysmenorrhea consequent upon congenital or acquired narrowness of the os uteri. A few days prior to the menstrual epoch, the os was divulsed with Ellinger's dilator, and the

patient given an opium suppository, and kept in bed until the cessation of the menstrual flow. It certainly gave great relief in many, and he thought in the majority of cases, but in some there was no improvement whatever.

It often occurred that the same patient would return often after many months of comparative comfort, but the os had again returned to the same degree of narrowness.

Dr. Goodell has furthermore called particular attention to a series of reflex disturbances provoked by cicatricial tissue in the cervix. Divulsion here could be practiced with a certain expectation of temporary, and often of permanent relief. The dangers are very slight, but trouble of a serious nature often results. Dr. Goodell related the history of two cases where pelvic cellulitis followed divulsion, and the Doctor thinks that he said one or both died.

Drs. Goodell, Baer, and others whom Dr. Dunlap saw practice this method, were careful to impress the fact that it was not an operation to be practiced without discrimination.

The speaker once stretched the cervix of a virgin for dysmenorrhea, and although the patient strictly obeyed all injunctions as to quietude and rest in bed, she developed a furious chill, high temperature, and pains in lumbar and pelvic regions. There was never at any time deposit to be found in the pelvic cellular tissue, but the pain was intense.

He had in mind another case where divulsion was practiced for a contracted os, the result, no doubt, of cicatricial tissue. This woman had a few months previously miscarried, and since that time had pains in the pelvic region, darting towards the ovaries and through the bladder. There was much vesical tenesmus and loss of control of its sphincter. The os was forcibly dilated, with unquestionable benefit, so far as its reflex symptoms were concerned, but the cul-de-sac was in a few days the seat of an inflammatory deposit. This yielded to

iodine and hot water douche. Dr. Dunlap furthermore said that his experience had rather inclined him to have some faith in the efficacy of the practice, but he was all the while aware of its dangers. Divulsion of the os uteri was done for the same reason that it was done in vesical tenesmus on the neck of the bladder. It can be depended upon to give temporary relief, but more often fails to permanently relieve when cicatricial tissue is the cause of either dysmenorrhea or reflex disturbances.

Dr. Harry Cowan reported a case of internal urethrotomy. The patient was aged twenty-six, and had suffered with obstruction for thirteen years. Divulsion was performed seven years ago with temporary relief. Had complete retention two years ago, and was tapped above the pubes. At time of operation patient had cystitis, urine passed every half hour, stream about size of a small knitting needle. Urine alkaline, dark-colored, and fetid. Stricture was found four and a half inches from meatus, through which I was unable to pass instrument. On September 17th the patient was etherized, and a patient attempt made to pass a filiform guide. After much difficulty Gouley's smallest conical steel sound was passed, with some force, through the stricture and into the bladder. Dr. Cowan called attention to the fact that the danger of making false passages lies in the fact that the stricture recedes before the sound when forcibly used, thus putting the parts on a stretch, and finally tears transversely the canal, into which laceration the sound enters. This can be obviated by grasping the loose scrotal tissue, and making counter pressure in opposition to the point of the sound. After the sound Otis' dilating urethrotome was passed and the stricture dilated up to 35, and then divided. After slitting up the meatus, an 18 Gouley's sound was passed, the urine drawn off, and the bladder douched with a carbolized solution. That evening the patient had a rigor, followed by fever and profuse sweating. After this the patient made an uninterrupted and

prompt recovery. Twelve days after the operation an 18 Gouley's sound readily passed.

Dr. J. M. Meyer, as an additional report to his paper, read at the last meeting, detailed some recent observations upon the therapeutic action of mercury, and read some observations and experiments, translated from a French medical magazine, in proof of the diuretic properties of the mild chloride of mercury.

Dr. Fayette Dunlap reported a case of craniotomy presenting some interesting features. On October 1st, at 3 A. M., he was called to attend a large healthy woman in her eleventh confinement. She was forty-four or five years of age, and had always had robust health, and no difficulty or unfavorable complications in previous confinements. Seven years before she had a pessary adjusted for retroversion, but this was worn but a short while. When called, the Doctor found that his patient had been in travail about twenty-six hours, and was well nigh exhausted, as attested by a pulse of 130, and rapid, shallow respiration. There was complete cessation of uterine contractions. The os was fully dilated, but was either enormously hypertrophied, or was œdematous in consequence of the pressure of the child's head in the pelvis. From the point of first contact with the os to the fetal head it was fully the length of the Doctor's index finger. The vaginal walls were œdematous, and secreting mucous abundantly. On account of dyspnea the woman insisted on sitting upright in bed.

Examination revealed a face presentation with the chin under the lymphic pubis, but not fixed. Firm pressure could dislodge the head, and it was slightly movable. The uterine wall, through the abdominal wall, gave the impression that the organ was quiescent, and had not the firm hardness common during the progress of parturition. The uterus had several hours previously emptied itself of all amniotic fluid. After waiting for a reasonable time, and there

being no return of uterine effort, he gave a teaspoonful of Parke, Davis & Co's normal liquid ergot, and repeated the doses twice in two hours. There was a feeble response, and again the head engaged as before, the face presenting. In the meantime the head had been held in the vagina, awaiting the return of a pain with the hope that the chin could be held above the brim and the occiput brought down. The forceps were, in the interval of the feeble pains, adjusted *upside down*, with the view to correcting the false presentation and forcing the chin down on the sternum. This failed repeatedly. The head was very large, and the cranial walls unyielding.

Dr. W. R. Evans was then called in counsel, and as the woman's protracted condition called for immediate aid, craniotomy was decided upon. Smellie's perforator was introduced first above the frontal eminence, left side, and a large opening made. The cranial contents were easily expelled. The forceps were again applied, but would slip from their hold. The blunt hook was then forced through the incision, and fixed into the foramen magnum, and by easy traction the head was brought into the vaginal outlet through the os. Expulsive efforts had wholly ceased. The shoulders were easily movable on the brim, but could not be made to engage, even by considerable force applied by the tractor. The left arm was then brought down and amputated, and the contents of the thorax emptied by the perforator. The diaphragm was then entered and the abdominal viscera also expelled. By gentle traction on the clavicle and right arm the shoulders were somewhat more favorably placed for manipulation, but no nearer towards delivery. Fastening a strong cord to the spinal column the body was brought into view, and then the pelvis became tightly fixed above the brim, or partly within the outlet.

The tractor then being fixed in the fetal pelvis, the delivery of the remaining part of the child was easily accomplished.

Passing the hand into the uterus, its walls were lax and not in the least responsive to the irritation made by attempts at dislodging the placenta. The impression was as if the hand was in a large, empty cavity. After waiting an hour the placenta was detached. It came away easily, and was not followed by bleeding of consequence. The woman was given alcohol at stated intervals, and in a few hours expressed herself as comfortable. She soon recovered from the shock and slept without an anodyne. The uterus slowly recovered its tonicity and expelled the clots very freely. The placenta was large, and it is absolutely certain that no part of it was left. The woman did surprisingly well for six days, the soreness of the parts entirely passing away, the lochia free and without odor, sleep secured naturally, appetite fair, tongue clean, no headache, and every thing seemed favorable for a speedy and complete recovery. She would sleep all night without an anodyne. The vagina was douched with hot water daily, by a competent nurse, and several times by the doctor himself. On the sixth day a chill came on, followed by a very high temperature, tenderness over the pubes, and a gradual change in all the symptoms. The following day she had another chill, and an aggravation of all the symptoms. The *lochial discharge was never suppressed*, nor was the mammary secretion. There was never during the progress of the case the least evidence of septic infection. The abdomen became distended, and when not under the influence of opium the muscles were in constant spasmodic action. The spasm seemed to be confined to the recti muscles, and were so severe as to perceptibly shake the body of the patient and the bed upon which she was lying. Opium in large doses controlled this painful condition. The pulse was rapid and characteristic of peritoneal inflammation. The patient's symptoms became daily more unfavorable, and she died on the seventeenth day after confinement.

Dr. Dunlap stated that there were several features of importance, in a practical sense, presented by this case. The first was the uterine inertia, and secondly the length of time between the delivery and the beginning of the peritonitis. The inertia uteri was absolute, and the expulsive efforts could not be aroused.

After the fourth day had passed Dr. Dunlap was so well satisfied with his patient's condition that he ceased his visits and regarded his patient out of danger. As above stated, the initial chill came on the sixth day, and without any premonitory symptoms.

Dr. W. A. Brown exhibited a new instrument for washing out the uterine cavity. It consisted of a double current canula, with piston attached, and so arranged that any quantity of water could be used without removal of the instrument. At the same time the return current is assured.

UTERINE
THERAPEUTICS.

The readers of PROGRESS will find in Dr. McMurtry's scholarly resume of uterine therapeutics a timely warning against many popular fallacies which have been received and promulgated by special writers on this subject. Men like to excel each other, and there are many who feel that specialism offers the best field, without ever stopping to consider that the most important, and, in fact, necessary preparation for a specialty lies in a thorough mastery of all that which is known as general medicine.

Gynæcology is becoming opprobrious because there are so many Symington Browns and pessaries, and specula, and gynæcic devices. Why, it seems women are no longer to be gazed upon as the possessors of mysterious charms, but, like a blooded heifer, whose keeper shall be able to furnish a pedigree, with the certificate of the specialist that her genitalia are sound.

It is soon to be asked, "Well, Miss, who's your gynæcologist?"

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY.

DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

D. W. RAYMOND, BUSINESS MANAGER.

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A TRIFLE LATE
BUT OUR LAMPS
ARE FULL.

Journalism has its own peculiar charms and consequences. It is like getting up when one awakes in the morning. Much of the disposition to promptness depends upon the nature of the preceding night's sleep. In journalism one must be allowed to come late occasionally to show that the magazine is like other human enterprises. Of course there are some other reasons. The pleasure of the contributing patron must be heightened by the prolonged expectation of seeing his latest and best essay in print; while the loyalty of the non-paying subscriber, and the patience of the applicant for a sample copy must be tested. Don't you see, dear reader, how considerate we are this month?

NO JOURNAL
CLIQUE.

The *St. Louis Medical and Surgical Journal* is a great joker. It claims that a clique of journalists organized a mutual admiration society last May, and agreed to copy from each other and to ignore outsiders. Brother James claims to be an outsider. If he will look at this issue of PROGRESS he will readily see we are not scratching to be scratched. May be James refers to his Journal in its relation to those excellent neighbors, the publications of Chambers & Co.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

REMARKS ON THE USES OF PAPINE.—By Wm. J. Crittenden, M. D., Unionville, Va.—In the practice of medicine we are often called upon to treat patients who possess a peculiar idiosyncrasy as to the effects of opium or any of its preparations. During January, 1886, I was called to see a lady suffering with acute peritonitis. She assured me that she could not use opium, as she had tired of it previously. But I gave her one-eighth grain of morphia sulphate and one one-hundred-and-twentieth grain of atropia sulphate hypodermically, and in a few minutes the depressing effects were noted, both upon the respiration and circulation; the pupils also became visibly contracted. I then tried the various usual substitutes for morphia in succession, but to no effect. I determined to try Papine; but not being able to give it by the mouth, on account of nausea, and as she objected to the use of the hypodermic needle, I gave her two drachms per rectum, and repeated it in one hour. The result was that she sank into a quiet, peaceful sleep, which lasted for several hours. During the remainder of her sickness I gave her Papine, with the most gratifying results. As soon as her stomach would retain it, I gave it to her by the mouth in one-drachm doses.

I have also used Papine in a case of uterine cancer, in lieu of morphia. In cases which patients have been taking morphia until it has lost its anodyne influence, Papine is well adapted.

Some time ago (in absence of the family physician) I was called to see a lady one night, in great haste, who was suffering with malignant disease of the uterus. On my arrival the nurse informed me that she had

given her a grain of morphia, with suitable percentage of atropia, every hour for five or six hours, and during the intervals she had given her chloroform, but to no effect whatever. Accordingly, I gave her xxx min. of Papine with eighth grain morphia sulphate, repeating it in fifteen minutes, and in a short time she fell asleep and slept for six hours, which was more than she had slept at a time for months.

In pneumonitis, pleuritis, and bronchitis I have found Papine to answer an excellent purpose. In dysentery it is useful both as an anodyne and in relieving the tenesmus. In the diarrhea of children I frequently combine with it bismuth subnitrate and prepared chalk. I have used it also in cystitis. In neuralgia, when I wish an anodyne, I use Papine. As an anodyne it is equal if not superior to morphia, and I have never yet seen any unpleasant effects from its use. As a hypnotic I find it to be an agent of great value. It is inferior to bromida when we simply wish the effect of a hypnotic. But it fulfills the indications when we wish a decided anodyne as well as a hypnotic influence. I trust that the readers of the *Virginia Medical Monthly* may give this drug a trial, as I feel that they will be amply repaid for their trouble.—*Virginia Medical Monthly*, August, 1886.

RIO CHEMICAL CO.—Mrs. W. H. consulted me on January 20, 1886. On examination she was found to be suffering from chronic uterine inflammation, elongation and ulceration of the os uteri, with antversion and the usual concomitant symptoms, such as frequent desire to micturate, inability to walk, etc. Her womb was easily replaced, but returned to its abnormal position on her attempting to walk. Various kinds of pessaries were attempted, the ulceration having been previously healed by the use of the nitrate of silver and the glycerine plug, but their presence could not be tolerated. The recumbent position was then enforced for a fortnight. During this period her only treatment consisted of mild saline aperients at intervals of two or three days, and the exhibition of aletris cordial in drachm doses three times daily, gradually in-

creased to two drachms. She then began to take gentle exercise and has steadily improved, and is in expectation of soon becoming a mother. She had never been pregnant previously.

HY. BAYFIELD, *L. R. C. P. Surgeon.*

I, SOMEN VILLAS, Lavender Hill, S. W.,
London, Eng., April 3, 1886.

McKENNA whisky is especially ordered by most of our prominent physicians; they know it to be pure.

LOUISVILLE, KY., Nov. 1, 1886.

Messrs. R. A. Robinson & Co., Louisville, Ky.:

GENTLEMEN—For a number of months I have been prescribing your "Syrup of Hypophosphites" and have also been employing your "Wine of Coca" since it was placed before the profession. In my prescriptions I have specified "R. A. Robinson & Co.," because of my confidence in the integrity of the manufacturers; feeling assured that they would permit no indifferent compound to be prepared at their laboratory. After having observed the effects of the above preparations on a large number of patients, I am convinced that no similar mixtures, now upon the market, are so elegant and palatable, and at the same time so invariable and accurate in composition.

Respectfully your obedient servant,

JAMES M. HOLLOWAY, M. D.

728 Fourth Avenue.

SAMPLES of the productions of the Rio Chemical Company have been received at this office. The proper expression of a very favorable opinion regarding them will shortly appear in PROGRESS.

CASCARA CORDIAL.—That the profession to-day is being awakened to the necessity of palatable medicines, is evidenced by some recent articles that have appeared in current medical literature. Dr. E. S. Riggs, *Therapeutic Gazette*, March, 1885, page 212; Dr. Frank H. Martin (*Ibid*), January, 1886, page 11 *et seq.*; and Dr. Horatio C. Wood (*Ibid*, page 181 *et seq.*) emphasize the desirableness materially improving the palatability of prescriptions; and other illustrations are not wanting to show the importance this question is assuming in the minds of physicians. While much may be done by a proper selection of the concentrated and improved forms of medicine, and by administering nauseous drugs in pills and granules or capsules, there still remain many drugs which it is necessary or expedient to administer in fluid form.

It is to render this large class of preparations acceptable to the palate that the physician often tries the whole line of vehicles, without satisfaction to himself or to his patient.

A vehicle which would combine the properties of compatibility, permanency, and innocuousness, and above all possess the quality of disguising and rendering positively agreeable to the taste many of these nauseating and bitter preparations, must necessarily meet with the universal appreciation of practitioners, and be a priceless boon to their patients.

It is the purpose of this note to call attention to such a vehicle and corrigent, and to suggest a few illustrative formulæ which will indicate its very wide range of application in every-day practice.

We believe that that combination of aromatics and carminatives with cascara sagrada, known as cascara cordial, introduced by Messrs. Parke, Davis & Co., fulfills every required indication.

In addition to its power of disguising the taste of such bitter drugs as quinine, its gentle laxative properties render it peculiarly well adapted for addition as a corrigent to the many preparations which, given alone for any length of time, tend to interfere with the normal action of the bowels, such as the various preparations of iron and opium, than which no others are more frequently indicated and more used by physicians.

The requirements of the physician will extend its use to almost all prescriptions needing correction, either on account of their bitterness or tendency to constipate. So many diseases are dependent upon or attended by disturbance of the functions of digestion and assimilation, and especially by interference with the secretory functions of the bowels, and so many valuable drugs, the use of which is indispensable, but serve to increase or perpetuate this tendency, that the application of a vehicle which secures palatableness and at the same time establishes a regular action of the bowels, must come into very general use in the every-day routine practice of a physician.—*Medical and Surgical Reporter*, Oct. 23, 1886.

QUEEN & CO. 924 CHEST. ST.



PHILADELPHIA, PA.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN-
TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND
ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES-
SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF,
AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT
MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE
SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION
AND SUBSTANCE."—*BACON*.

VOL. I.

LOUISVILLE, KY., DECEMBER, 1886.

No. 6.

GENERAL MEDICINE.

THE THERA- PEUTIC VALUE OF ERGOT.

BY

J. P. THOMAS, M. D.,
COTTAGE LAWN, KY.

Read to the Christian Coun-
ty Medical Society, at Cot-
tage Lawn, Oct. 14, 1886.

Believing that the medical profession of to-day in its mania for new remedies has, to the detriment of the diseased, become in-
different or neglectful of many of the old and reliable drugs, the vir-

tures of which have so often stood the crucial test of experience in the hands of our fathers, and also that it would be more safely scientific not only to return to them as tried friends, but to study the many *yet hidden and undiscovered* virtues that no doubt some of them possess, than this constant search for new and untried remedies.

The progress of materia medica, as this multiplication of drugs is called, consists to a great extent in adding numbers to the already voluminous pharmacopœia. These constant additions to our list only bewilder and daze the brain of the practitioner, and it is calculated to confuse and mystify rather than aid him in the management of disease, because each new candidate for professional favor comes equally endorsed by some one who has studied its physiological action upon animals, and even tested its power as a therapeutic agent upon man; consequently, one finds himself unable to decide as to which to trust the life of his patient to—thaline, kairine, or antipyrine, etc.

Therefore, I propose to discuss briefly the
Vol. I, No. 6—18.

therapeutics of one of the oldest drugs in the pharmacopœia, having for the past five years studied its varied action upon the organism, I am convinced that it is not appreciated by the general profession, yet it is a drug that is, perhaps, more often abused by being improperly administered than any other.

As all know, ergot belongs to a family of parasites or fungi, and—though found upon other plants and grasses—that its principal habitat is rye, from which alone it is procured for medicinal use. The oxytocic properties of ergot seem to be possessed by all this parasitic family, but to perhaps a less degree. I have seen the same ecbotic effects produced by corn smut, wheat smut, the mistletoe, and the moss that so gracefully drapes the trees of the southern forest.

Though, true parasites, I have found them when properly used of more or less value to man, and ergot is preëminently beneficial, *although in over-doses it is a poison*; this latter fact many seem to ignore.

The physiological effects of ergot seem to be concentrated upon both the nervous and vascular systems. Upon the former it produces debility, and in toxic doses dilatation of the pupils; and its effect upon the cerebro-spinal centers is so profound as to occasionally produce spinal paralysis, preceded by both tonic and clonic convulsions. We first notice its effect upon the circulatory system by the feebleness of the heart's action, the slowing of the pulse, the cyanotic condition which its continued use in over-doses will

invariably produce. Thus it reduces the temperature and impedes the circulation, both by its depressing effect upon the heart, and more especially by its power to contract the arterioles; and, of course, by this obstruction to the circulation may, by diminishing their necessary supply of blood, result in gangrene of the extremities.

It is said when administered to animals and birds that it causes the former to shed their hair, and the latter their feathers.

But I believe its primary action is always upon the nervous system, both spinal and ganglionic. Yet such authority as Stillé and Maisch affirm that the modification of nervous action is consequent upon a diminished supply of arterial blood to the cerebro-spinal and ganglionic nerve centers, while we know it has long been attributed to the power of ergot to contract the capillaries. I think this power to lessen the caliber of the capillaries is due primarily to its action upon the nerve centers, not as these distinguished authorities seem to attribute it to its action upon the heart, *per se*, for we often witness its full effect upon the nervous system before there is any perceptible effect upon the circulation. In thus expending its primary effect upon the nervous system, it seems to me that it is often the cause of the death of the fetus, not only before it produces its characteristic effect upon the uterus, but in cases where it fails to produce any apparent contraction of that organ, and I opine in many cases, because of this failure, the practitioner continues to administer the drug with the hope that in large doses it will produce uterine contractions. But it is a frequently observed fact that ergot fails to act upon the uterine muscular fibers, even when the drug is perfectly fresh, and has proven its efficiency in previous cases. Then if efficient and reliable in any case, it must fail in others because of the individual idiosyncrasy or the extreme inertia of the uterus, and may act upon the nervous system when it fails to exhibit its oxytocic powers; consequently this practice is dangerous.

The statement that it has been the cause of fetal death by its depressing effect upon the mother may be denied on the ground that there is no direct nervous connection between mother and fetus in utero; but, on the other hand, facts speak in more convincing tones than theories.

Though it was long denied by the profession, and hooted at as an absurdity, yet we now know by hundreds of demonstrated instances that impressions made upon the nervous system of the mother often exhibit their results upon the fetus, or, in other words, deformities, marks, mental peculiarities, and even monstrosities are produced by mental impressions upon the mother, and that "maternal impressions" is now an acknowledged fact. And as there are undoubtedly many cases occurring in the practice of every accoucheur in which the most reliable preparation of the drug fails to produce perceptible oxytocic effects, we know it is taken up by the absorbents; may it not still produce its primary toxic effect on the nervous system, and in this way poison the child in utero?

I believe it is acknowledged by the most eminent obstetrical writers that the constant contraction of the uterus produced by ergot is a source of danger to the child by mechanical compression alone.

But that it has the property of contracting the entire capillary system has been demonstrated so often by the arrest of hemorrhage from almost every organ and tissue, the lungs, nares, bowels, uterus, etc., and more especially proven by ophthalmoscopic examination of the retina.

The primary action of ergot upon the nervous system is further proven by the often observed action of the drug upon involuntary muscles—as the uterus and heart, and we may say to some extent upon voluntary muscles, as exemplified by spasms of the intestinal muscles, which are in some degree voluntary muscles. It possesses the power to act primarily upon the whole nervous, and especially upon the cerebro-spinal

system, to such an extent that its prolonged use will so modify nervous action as to result in permanent tissue metamorphosis, by gradually diminishing the necessary supply of arterial blood for continued nutrition, lessening the caliber of the arterioles, and producing spasms of all involuntary muscles, and perhaps some voluntary, producing both tonic and clonic spasms and sometimes convulsions, and entirely arrest tissue nutrition, as in ergotic gangrene. It will diminish the growth of abnormal tissue, as shown in the successful treatment of fibroid tumors, etc.

It seems safe to expect from such an agent multiple therapeutic indications, and that when its multiple properties are more fully studied and its therapeutic indications appreciated it will be scientifically administered, and only in accordance with its various physiological actions; then its therapeutic field will be broader, and not confined to its oxytocic or hemostatic properties, and its position in the materia medica higher.

By a few experiments upon frogs I am convinced of its power to contract the capillaries, and of its poisonous properties; in the frog it causes first dilatation of the pupil, and a sort of tremor or twitching of the muscles, and in over doses death in convulsions. With only a good magnifying glass the capillaries in the web of the foot can be seen to contract until there is complete stasis of the circulation.

These few simple experiments, and the study of the various physiological effects of ergot, as reported by experimenters from time to time, have caused me to greatly extend its application in general practice.

I would anticipate the objections that have been advanced to the following formulæ: "They are combined with other drugs, and consequently ergot should not be given the credit of their clinical results." In answer to this I can only reply that the same formula without the ergot did not give as good results as when it was added.

In simple conjunctivitis (not specific) I

have found no collyrium better than the following:

R Liquidī ergotæ (normal) . . . ʒij;
Hydrastini grs. v;
Aquæ destill. ʒj.
M.

Often the hydrastine is omitted, and results are good. In some forms of ophthalmia, not specific, accompanied with excessive secretion, either lachrymal or muco-purulent, it is almost a specific; of course, as is usually the case, when there is much pain some anodyne, as morphia, is added—more recently ʒj of a four-per-cent sol. of cocaine.

In the summer complaints of children, more especially where the discharges are serous, while correcting the usual hepatic torpor with very minute doses of calomel, sugar of milk, or pepsin, I usually prescribe the following, and with better results than any single prescription; often it acts like a charm, and such cases require no other medicinal treatment, only dietary treatment being necessary, as Carnrick's Sol. Food.

R Liquidī ergotæ (norm.) ʒss;
Tinct. belladonnæ . . . ʒjss;
Tinct. opii camph. . . ʒij ad. ʒiv;
Aq. menthæ } aa . . . ʒij.
Syr. limonis }
M.

To a child one year and under two give one teaspoonful every two or three hours, unless the toxic effects of the belladonna are shown by flushed face, dry fauces, etc., when, of course, the dose must be lessened or the medicine discontinued until such symptoms pass off. When the discharges are green or other evidence of an excess of acid, ʒij of bi. carb. of soda is added to the above formula.

In many such cases ergot alone will often arrest the serous diarrhœa and produce consistent stools.

Hypodermically administered the following has never failed in my hands to arrest cholera morbus:

R Liquidī ergotæ Mxx;
Morphinæ sulph. . . . Gr. ¼;
Atropinæ sulph. . . . Grs. ʒ_{ss} to ʒ_{ss};
Aquæ Mx.
M.

This given subcutaneously at one injection has repeatedly put a stop to the constant vomiting and purging, and as promptly relieved the painful spasms of the gastrocnemii muscles, so characteristic of cholera morbus.

This single dose followed by from five to ten grains of calomel has been the only treatment I have found necessary in the majority of cases. Several cases I have found almost in collapse from excessive vomiting and purging, unable to retain a teaspoonful of any thing in the stomach, not even ice, but after this injection, and in a very few minutes could take with a relish a plate of soup.

In a few cases after the excessive vomiting, purging, and cramping have ceased there will continue a diarrhoea in such cases after the liver is aroused. I have found thirty drops of the liquid ergot, every two or three hours, competent alone to check it and produce consistent stools.

From an extensive experience with this formula in cholera morbus, I should be very much inclined to give it the first place in the treatment of Asiatic cholera, if called upon to treat this plague. I would have more confidence in the success of this combination with proper adjuvants—at least until tested by clinical experience—than any or all of the so called germicides.

Notwithstanding the fashionable pathology of cholera, consisting of multiplied millions of “Comma Bacillus,” and yet there is not a germicide so called in the formula. My success in such cases has been such that it has become an aphorism with me that, *whenever there is an excessive serous discharge or secretion, from any organ or mucous membrane, ergot is indicated.*

And I can truly say that, according to my experience, it will disappoint the practitioner less frequently than any of the numerous astringents.

In pertusis, where the bronchial secretion is so abundant as to produce death by drowning, as it were, ergot is the remedy

par excellence. I have seen its administration check the inordinate quantity of bronchial secretion almost magically, and am satisfied saved the lives of several little sufferers from actual suffocation.

But as an abortive of whooping cough I make no claims for ergot, neither do I think any has yet been discovered, notwithstanding the claims that have been advanced as such for belladonna; but as aids to nature in guiding it to a successful termination I have had more success with ergot and belladonna in the second and last stages, and carb. ammonia and quinia in the first, than with any other treatment.

A favorite formula however in any stage of this disease is:

R Liquidum ergotæ ʒss;
Tr. belladonnæ ʒij;
Amonii carb. ʒss;
Aquæ } aa ʒij.
Syrupitolutanæ

M. Sig.—One teaspoonful, to a child two years and over, every three hours.

In the suffocative stage of capillary bronchitis I have long used as a sheet anchor the above prescription, but without the belladonna, and with satisfactory results.

In a paper published some years ago in the *Virginia Medical Monthly*, I extolled ammonia carb. in solution alone in this distressing state of capillary bronchitis; but since that paper was published I have added the ergot, and am convinced it is a most valuable addition.

The ammonia seemed to be curative by its power as an expectorant and stimulant, thus enabling the child to throw off the excessive secretion, and in aiding oxidation of the blood, while the ergot actually lessens the amount of bronchial secretion by capillary contraction.

In that intractable and opprobrious disease to all known therapeusis—migraine, or sick headache—I have often been able to afford relief by ergot combined with some hypnotic, as cannabis indicus or hyosciamus.

Directing the sufferer to keep the liver

sufficiently active, I most generally prescribe the following:

R Extracti ergotæ, F. } aa . . f. $\bar{3}j$.
Extracti canabis ind., F. }

M. Sig.—From thirty to sixty drops every half hour until relieved.

In those so-called constitutional cases of migraine, or in trifacial neuralgia, accompanied with anemia, no combination has produced better results than the following:

R Extracti ergotæ $\bar{3}ij$;

“ hyosciami }
“ canibis indici } aa. . . . $\bar{3}j$;
“ nucis vomicæ }

Quininæ sulphatis $\bar{3}j$;

Ferri hydrocyanatis $\bar{3}ss$;

M.—Ft. pil. No. LX.

Sig.—One pill every three hours until relieved; then one before each meal, or every morning and night.

I believe as an internal remedy that ergot is considered the most reliable hemostatic known. In cases of acute dysentery, combined with other drugs indicated, it has, in my hands, proven of great service.

It is especially useful in those cases in which blood predominates in the discharges.

In several cases in my practice, where there was but little pain, after a saline cathartic, I found no other remedy necessary but fluid ext. of ergot in thirty- or forty-drop doses every two or three hours.

A favorite formula in the majority of cases (always prefacing the treatment by a full dose of sulphate of soda, which I prefer to the sulph. of magnesia on account of its milder and yet more certain action) is the following:

R Extracti ergotæ, F. $\bar{3}ij$;

Mucilagis accaciæ $\bar{3}iv$;

Acidi carbolicæ $\bar{3}j$;

Acidi sulphurici arom. }
Tincturæ opii. } aa . . $\bar{5}jss$.

M. Sig.—One teaspoonful every two or three hours, according to the narcotic effect of the opium or the frequency of the discharges.

Of course in every case of dysentery where there is decided hepatic torpor mercury in very small doses is ordered, because bile is nature's healer of the inflamed or ulcerated mucous membrane in dysentery,

and when “bilious stools” make their appearance the case is more hopeful, and a speedy convalescence may be expected.

In hemoptysis, uncomplicated with extreme anemia, the following formula will rarely fail to avert, at least for a time, the passive hemorrhages, or even check the more excessive pulmonary hemorrhages:

R Extracti ergotæ, F. }
Olei erigerontis } aa $\bar{3}j$.
Acidi sulphurici arom }

M. Sig.—From thirty to sixty drops in a wine-glass of water as often as necessary.

In that singular disease hemophilia, or “bleeders,” or hemorrhagic diathesis, the following has given better results than all other medication:

R Extracti ergotæ, F. $\bar{3}ij$;

Potassii chloratis $\bar{3}ij$;

Tr. ferri chloridi $\bar{3}j$;

Aquæ dest. $\bar{3}xij$.

M. Sig.—One tablespoonful three times a day, before meals.

This prescription with lemon juice and an almost exclusively vegetable diet has succeeded in effecting a cure of one case of purpura hemorrhagica.

It will be found upon trial, perhaps, the best treatment in bridging women over the climacteric period.

After treating successfully, but painfully, several cases of internal hemorrhoids with injections of carbolic acid and glycerine, I have recently used Parke, Davis & Co.'s normal liquid ergot with marked success as to the obliteration of the tumors, and without so much suffering to the patient.

It is but justice, in this connection, to state that I have employed for the past year the normal liquid ergot of that enterprising Pharmaceutical House, Messrs. *Parke, Davis & Co.*, in these formulæ, because it is non-irritating and always of uniform strength, and, therefore, preferable even to ergotine. The latter has seemed more irritating, and in my hands has always seemed inert.

I believe that one or more injections of ergot into different portions of all very vascular and soft internal hemorrhoidal tumors,

will effect a cure, or at least render them comparatively painless.

I have no experience with this treatment in external piles, but do not think it would prove of much benefit, and have always used the knife.

A few years back, ergot in powder was announced by Dr. Collins as a cure for cancer, but like all cancer cures it failed to stand the test of trial, and cundurango-like flourishes only for a season; but in the treatment of two cases of cancer of the *mammæ*, I found it an excellent dressing. The powder absorbed the secretions and seemed to act as a disinfectant of the horrible *fœtor*, as well as to check the excessive fungus granulations; and, all in all, was as good, or perhaps better, than any other dressing.

But in this connection I desire to call your attention to an application of ergot, suggested by its use in the cases of cancer, and, as far as I know, entirely new:

In many cases of "skin ulcer," or ulcers of long standing, that have resisted all other treatment, except, perhaps, skin grafting; ulcers in which the granulations are excessive—where the whole surface is a bright red—*i.e.*, the opposite of the indolent ulcer, I have had most excellent results from the constant application of the fluid ergot, which greatly reduced the granulations; and when this was accomplished, by the addition of liquid *hydrastis*, *canadensis*, and *pinus canadensis*, have effected a cure. The ergot was kept constantly applied by means of absorbent cotton saturated with it. Much must be absorbed, and its contraction of the capillaries of the part thus diminished tissue nutrition, the redundant granulations were reduced to a normal standard so to speak, and nature allowed to proceed with the healing process.

Where there is much pain in these old cases of skin ulcer, I have found that a leaf of common tobacco, kept constantly wet with the liquid ergot, lessens the pain and in some way aids the repair of the tissue, perhaps only by its anodyne properties.

My experience with ergot in the treatment of fibroids, is limited to three cases. Two were submural tumors of the uterus. After a prolonged treatment by ergot alone, both patients regained their usual health and flesh, one of the women has since become pregnant, and I delivered her of a healthy child. After extracting the placenta, which was adherent, the entire uterine wall was carefully examined, but I could detect no remains of a tumor. The third case, who is still under treatment, is a wonderful illustration of the property of ergot to arrest tissue nutrition. Jane Clark, colored, aged thirty, mother of one child, came to me, stating that she was "a great sufferer from falling of the womb;" that the downward pressure was so great that she was unable to keep upon her feet for more than a few hours at a time; that when lying down she did not suffer; that she "had been treated by two physicians for nearly a year;" that she "had worn some kind of a support inside of her, but that it only made her sore," etc. A vaginal examination confirmed the diagnosis of her physicians as to the prolapsed condition of the uterus, as the os was nearly protruding from the vulva. Finding it difficult, from its great weight, to replace, a careful examination of the belly by palpation was made, and a hard, unyielding tumor was discovered, apparently nearly as large as a cocoanut, seemingly attached to the fundus-uteri and imbedded in the uterine tissue. It extended an inch above the umbilicus when the uterus was in complete prolapse, and on lifting the latter upward, by the introduction of the four fingers, to about its natural position, the tumor could be felt to rise with it until it impinged upon the stomach.

Diagnosis: Fibroid tumor growing from the fundus-uteri.

She was placed upon the normal liquid ergot in teaspoonful doses, three times a day, and iodide of potassium in ten grain doses, three times per day, gradually increasing the latter, until she is at present

taking ninety grains per day. On the first of October the tumor was hardly perceptible by careful palpation through relaxed and rather thin abdominal walls. I am sure it is not much larger than a hen's-egg. The uterus has spontaneously, or with only the aid of cotton-balls soaked in glycerine, assumed nearly its natural position. The woman, from being almost helpless and emaciated, has increased in flesh, is as active as she ever was, can remain upon her feet as in health, and her skin is black and glossy.

In a fourth case of intra-uterine fibroid, in a negro reduced to extreme anemia from robust health, by excessive and almost constant hemorrhages, because she had persistently refused an examination, but had taken ergot continuously for over a year for the purpose of arresting the hemorrhages produced by the presence of the tumor, it was of course, only of temporary benefit, and only checked the hemorrhage at best for a few days at a time, but perhaps prolonged her life. Finally, after nearly losing her life by a profuse flow of blood, that required the tampon to arrest, she consented to any operation necessary to remove the cause of her trouble.

A vaginal examination revealed a firm body already distending and occupying the cervix. Being chloroformed, a Sims' speculum was introduced, with the woman in Sim's position, but with only her husband, an ignorant negro, as my assistant. I proceeded to try to remove it by enucleation, as it was to my surprise and gratification protruding into the vagina. With considerable difficulty I succeeded in forcing my index finger between the tumor and cervical wall, and by running it around the tumor finally dilated the cervix sufficiently to ascertain that the posterior portion of the tumor was still apparently imbedded in the lower segment of the uterus. After much and difficult manipulation I succeeded in literally digging it out with my finger, when grasping with a pair of dressing for-

ceps drew it into the vagina, but found it attached to what seemed to be blood-vessels that entered the tumor. Fearing this to be the case, and to prevent hemorrhage, a loop of small wire was passed over the pedicle and twisted, when with a pair of curved scissors this *apparent* pedicle was severed, and the round, hard tumor of dense, white fibrous tissue, I now show you, was removed. You will perceive it had no pedicle, in fact, but is perfectly round, smooth, and so solid and compact in structure as to impress one with the idea that it had no blood-vessels, but was nourished entirely by capillary circulation, therefore the seeming pedicle, I opine, was only the ruptured and still adherent mucous membrane.

Though there was no absorption of this tumor from the action of the ergot, yet it teaches us the lesson that the continued action of the drug upon the muscular fibers of the uterus will, in some cases, accomplish what we can not with the knife; force a submural tumor from its bed beneath the mucous membrane, and even expel it from the uterus. The patient had no more hemorrhages, and under tonics rapidly regained her strength, and at present weighs one hundred and eighty pounds.

In some obscure spinal troubles, I have found ergot beneficial in connection with strychnia, electricity, etc.

As an injection in gonorrhea it has no equal, especially in those old cases that have resisted the usual treatment with the normal fluid ergot, of Parke, Davis & Co., and water equal parts. I have succeeded in curing several cases in persons who had been under treatment for weeks, using mercuric chloride, acetate of zinc, sulphate of zinc, aquaous solution of socotrine aloes (which latter sometimes acts charmingly in the arrest of the discharge).

These and other injections, together with the copaiva compounds internally, had been used without success, when ten days' use of the ergot injections would produce a cure. Of course there are cases in which it, like

every other treatment, will fail, and recourse to the cold sound will effect a cure.

The often untimely use of ergot in obstetrical practice can not be too often or too earnestly condemned. I may be an extremist on this subject, but in my opinion the case should be an exceptional one where it is not almost criminal to give it before the commencement of the third stage of labor.

During my early practice, owing to the professional ignorance of its physiological properties and the consequent false teachings of that day, the teacher being ignorant of its poisonous properties, and especially ignorant of its producing any effect upon the fetus, only taking into consideration its parturient properties, I am certain that my own ignorant administration of this potent drug has been, in the past, the cause of some still-born children. And even in this more enlightened era in medicine, that scores of children are yet ignorantly sacrificed annually by its indiscriminate use. Often giving it even at the beginning of labor, I have heard reputable practitioners say that they do not hesitate to give it in all tardy labors, from the beginning to the end while the pains are infrequent and physician happens to be very busy."

Why? Because they have given it freely in perhaps several cases without apparent injury to either child or mother, and they are in a hurry to see some other patient, and "know from experience" that it will hasten the expulsive contractions of the womb, but they do not *seem to know* that the artificial contractions as produced by ergot are totally different from those of nature; that the latter are always intermittent, while the former are constant; that apart from the poisonous effects of the drug upon the fetus *per se*, these incessant contractions force the presenting part of the child through a hard unyielding cavity (often contracted) much more rapidly than such presenting part can adapt itself to the capacity of the tunnel through which it must pass, and that such powerful compression as that possessed by

the uterus when in active labor, rendered constant by an artificial stimulant, must necessarily be injurious to the child.

Occasionally such thoughtless accoucheurs have a cyanotic baby expelled into their waiting hands, and after a few manipulations to establish respiration, remark to the anxious mother and friends, "the cord was in two or three circles around the child's neck, and every effort to uncoil it in time to save the child from strangulation was unsuccessful;" or that "the appearance of the body indicates that the child had been dead for sometime;" or they will sometimes permit to pass uncontradicted the suggestion of some "knowing female" in attendance, "that she knew she would kill her child by always keeping her hands above her head."

In parturition ergot should never be given unless the os is fully dilated, or so relaxed as to be easily dilated, and even the external parts should not be rigid.

On several occasions I have recorded a protest against the use of ergot in parturition except in lingering labors, and then only when it was caused by inertia with fully relaxed passage, and when no mechanical impediment is present that would retard the passage of the head. Or in cases where the death of the fetus is positively known, or where the exhaustion of the woman is urgent for relief from her suffering, or when dangerous symptoms supervene that threaten the life of the mother, and call for immediate delivery. In the majority of such cases, where the head is sufficiently low to be easily reached and grasped by the forceps, I would greatly prefer their immediate application as more speedy, and where the child is viable, less dangerous to both mother and child, guarding the perineum with all the care possible.

The chief and most efficient service of ergot in obstetrical practice is aiding nature in the expulsion of the secundines, and the prevention of post partum hemorrhage, and its free use after delivery to avert already existing hemorrhage. It should be adminis-

tered in every case predisposed to flooding, but not then until the beginning of the last stage, and continued after delivery as a prophylactic.

Its aid is invaluable in hastening the evacuation of the womb in every case of protracted yet inevitable abortion, and in the expulsion of any retained coagula.

To those women who have been previously the subject of post partum hemorrhage I invariably give a full dose of ergot, but rarely until near the termination of labor.

Ergot has been charged with producing hour-glass contraction, and both rupture of the uterus and laceration of the cervix, as well as perineal rupture.

In quite an extensive obstetrical practice I have recognized three cases only of hour-glass contraction, and at the time did not suspect ergot as the cause, but now think it was the sole cause in two of the cases. I have seen but one case of rupture of the uterus, and that was plainly chargeable to "meddlesome midwifery" on the part of the attendant, who ignorantly, in a breach presentation, drew down the feet, and then applied such extreme traction as not only to rupture the uterus but decapitate a very large and well developed child. I saw the case in consultation, having been called after the murder was committed, but a few minutes before the mother died. Said the attending physician to me, "you were sent for to assist in delivering the head," which had escaped into the peritoneal cavity through a rent of eight inches in length in the right wall of the uterus. After the death of the mother I performed abdominal section, and removed the head and placenta, both outside the womb. This case was published at the time in the *Richmond and Louisville Medical Journal*.

I have seen three cases of perineal rupture that I think chargeable to ergot.

From considerable observation of its effects when used to produce abortion, I am firmly of the opinion that it exerts positively no effect upon this organ when not in action,

and consequently the fear of producing abortion from its use, in medicinal doses, in pregnant women, where it is indicated for some pathological condition, is as groundless as that entertained by many practitioners, that there is danger of producing abortion by the free administration of quinine to women during gestation.

On the contrary, I am satisfied that in many cases of threatened miscarriage, from malarial poisoning, I have been able to prevent its occurrence by the timely and free administration of quinine. For without doubt malaria is the potent and prolific cause of accidental abortion in a miasmatic country.

Malaria is often the most powerful oxytocic, and unlike ergot will excite the uterus to action at any stage of gestation, whether predisposed to irritability or not.

I have usually found the addition of small doses of ergot to other hypnotics as fluid ext. virburnum, or a few drops of tr. opii, decidedly beneficial in the prevention of threatened abortion.

In every case of so-called accidental hemorrhage during gestation, I rely upon small but frequently repeated doses of ergot, and perfect quiet, and as yet have not failed to arrest the bleeding and prolong the gestation to term, except in cases of habitual miscarriage.

It is of course the main agent in all cases of chronic or habitual hemorrhage, from whatever source, nasal, urethral, vesical, intestinal, gastric, pulmonary, menorrhagic, metrorrhagic, and in purpura ergot is indicated; and when given in combination with other drugs to meet the complicating causes of the hemorrhage will always render good service.

When any form of chronic hemorrhage is accompanied by anemia, as of course nearly all are, a favorite formula is:

R	Extracti ergotæ liquidi	℥ij;
	Sodii chloridi	℥ss;
	Tincturæ ferri chloridi	℥j;
	Syrupi limonis	℥iv;
	Aquæ destillatæ	℥xij;

M. Sig.—Tablespoonful three times a day.

In diabetes I have had better success with ergot and carbolic acid than any other medicinal treatment; of course the dietetic treatment is the essential feature in this disease. I have had no experience with the sulphide of lime, so highly recommended by Dr. Flint, Jr. I order one teaspoonful of liquid ergot with two (2) drops of carbolic acid before each regular meal.

In many cases of simple polyuria ergot alone will perform a cure, but where the case is of long standing, full doses of belladonna should be added.

Though ergot has been, from time to time, casually mentioned in medical literature as a remedy in epilepsy, no writer, as far as I remember, has seemed to consider it of much value. Upon general principles, in every epileptiform attack, we have an abnormal flow of blood to the head, and in this condition alone can the bromides prove of any benefit. I was led to try large doses of ergot in combination with the bromides and other hypnotics in four cases of epilepsy of very long standing. In all the cases the fits were very frequent, and very violent; and had resisted, for years, enormous quantities of the various bromides, variously combined and alternated.

The results so far in four cases strongly incline me to hope that in ergot we have an agent that will add greatly to the value of the bromides in the treatment of this distressing malady. But as my observation embraces and covers a period of one year only at this writing, the time of exemption is too short to establish definite conclusions. Flint says five years, others, two years. Therefore, my number of cases are too few, and the time too short on which to base any final conclusions.

DISCUSSION.

Dr. Dulin said he thought the views expressed were orthodox. His actual experience, however, goes little beyond the oxytotic effect of ergot, and he has occasionally been disappointed in this even after larger

doses had been administered. The therapeutic field of ergot is being rapidly widened and its superior usefulness demonstrated.

Dr. Fairleigh was pleased with Dr. Thomas' paper; but felt compelled to assail several points in it where he disagreed. His objection to the paper is, that in most of the prescriptions of the doctor, from which such marked results were obtained, he has combined so many other remedies with ergot that it is next to impossible to determine that the effects were those of that drug. Belladonna, cannabis indicus, morphia, quinine, tincture of iron, and carbolic acid, are some of the drugs which formed parts of his prescriptions, some of which appear to be of the "shot-gun" kind, so that if one ingredient did not hit another might do so.

The action of ergot upon the nervous system, the capillaries, etc., is still mooted by experimenters. He is inclined to doubt, even, that it contracts the arterioles. One well-sustained view is, that it relaxes the muscular coats of the veins, thereby draining the arteries and capillaries of their blood; the heart's action is slowed; circulation becomes less rapid, and thus results lack of nutrition in the extremities and gangrene.

He does not think that ergot possesses any such directly poisonous property as advocated. He has never seen a man, woman, or child injured by its use; he therefore thinks it bad advice that "ergot should rarely be employed in the second stage of labor." The drug is as valuable here as in the third stage if the os is dilated or dilatable, and the passages are unobstructed; if not, the fetus may be killed, but not by any poisonous effect of the ergot. He has used ergot to arrest hemoptysis, and has seen the hemorrhage promptly cease, but he is not sure that the effect was due to the medicine. The same occurs often when common salt is used, when cold cloths are applied, and even spontaneously. He is inclined to think that ergot possesses hemostatic prop-

erties, and further experiments may demonstrate that it has more power in this way than is yet proven. As for other effects than those mentioned, he is skeptical. He does not believe that uterine fibroids are influenced by it at all, and thinks Dr. Thomas should look for some other cause for the disappearance of the tumor. We have not uncovered a bonanza in this drug.

Dr. Seargent said he enjoyed the paper of Dr. Thomas. He knows of Dr. Thomas' great faith in the therapeutic power of ergot: was a student of his, and used to put up his prescriptions. He thinks Dr. Fairleigh carries his skepticism too far. A physician without faith in medicine is like a doctor of divinity without faith in theology. He endorsed in the main the views of the thesis. Thought, however, that ergot stimulated only the sympathetic system of nerves, and not the cerebro-spinal; it acted upon involuntary and not voluntary muscular tissue. It is hemostatic, and powerfully so, by its power of contracting the muscular coat of the arterioles. He does not believe that ergot ever poisons the fetus by its circulation through the placental vessels. This result could be less likely to occur during labor than any other time, because circulation is then retarded—almost arrested—by contraction of the placenta. The fetus may be killed thus mechanically.

Dr. B. W. Stone said that he did not believe that ergot would ever be found to exercise the same power over epilepsy which the bromides exhibited. His experience with the drug as a remedy in the disease was limited, however, and only in combination with other medicines.

Dr. Dulin did not believe that malaria, *per se*, tended to induce abortion. Women in malarious districts are as prolific as any where else. It is possible that after several paroxysms of excessively high fever, where the woman becomes greatly prostrated, abortion may take place. If so, it is doubtless due to excessive temperature, and it may in any of the forms of high grade fever. If

quinine ever prevented abortion, the effect was anti-pyretic, not anti-malarial. It is true that abortion occasionally comes from very slight causes. Two cases occurred in his practice where no cause could be assigned; and one woman aborted without pain. In many women it takes dynamite to induce it.

Dr. J. P. Thomas said he had attended several cases where abortion came on during the first chill—one occurred on his farm. The effect could not be due to high temperature here, as they occurred before the second stage came on. He believed that many cases occurring in malarious districts were due to malaria. He believed with Dr. Stone that ergot would never take the place of the bromides in the treatment of epilepsy; but thought it might become a valuable remedy here, the same physiological effects being attributed to it as to the bromides, that of diminishing the supply of blood to the brain. On theoretical grounds, after the lancet he would always employ ergot hypodermically in cerebral hemorrhage to stop further effusion. In reply to Dr. Seargent, he would say that there was reason for believing that ergot contracted involuntary muscular fibre and relaxed the voluntary. In parturition he employed ergot in the third stage to thoroughly evacuate the womb of its contents, so that by disinfectant washes he might speedily cleanse the vagina, and place the patient in the shortest time in safe and comfortable circumstances.

He said that he might be too fond of making combinations in his prescriptions, but thought Dr. Fairleigh's strictures only random shots. In many of the cases reported no one could have a reasonable doubt that the principal effect was due to the ergot used, the other remedies being adjuvants, as none are so effective without it. Some of the points made by Dr. Fairleigh were assertions merely. Dr. Fairleigh has often expressed himself as opposed to the multiplication of new remedies, and when he had chosen as the subject of his thesis,

“The Therapeutics of Ergot,” one of the old medicines, he thought he would have the doctor on his side. The doctor does not yet believe there has ever been seen a case of hydrophobia. But the paper has accomplished its object, to elicit the contrary views of members under reports of cases.

QUININE BY
INUNCTION.

It is often stated that an ointment of sulphate of quinine and lard proves promptly efficacious in acute malarial affections, and as often denied. Those who affirm speak from experience, while those who deny the fact speak upon purely theoretical grounds. Liebreich, is quoted as saying in a public address that, Unna’s experiments upon the relative affinity of different oils and fats for water determines the degree or capacity of such for cutaneous absorption. Hence, it is argued that, as sulphate of quininia is very sparingly soluble in water, and not at all so in lard, an ointment made of these could not penetrate the dermis. After a tepid bath the ointment of quininia and lard may be rubbed into the skin of infants, and others who are unable to tolerate any form of antiperiodic in the stomach, with promptly efficient results, theoretical objections to the contrary notwithstanding. The great discrepancies of opinion as to proper dosage depend, no doubt, upon two widely varying conditions; one as to the urgency of the demand for antiperiodic effects; the other as to the thoroughness with which all the details of the administration, in order to secure its introduction into the general system, are observed. Any form of inunction presupposes a freshly bathed surface for application, and any form of disease demanding quininia is sufficiently urgent to require enough of the drug to make its powerful impress upon the nerve centers, as evinced in diuretic and diaphoretic stimulation. All the good effects with the least of the bad effects of quininia can best be secured in one full dose at night.

GENERAL SURGERY.

A LIPOMA OF
THE RECTUM.
BY
LOUIS A. LA GARDE,
Captain and Assistant Surgeon U. S. Army.
FORT ELLIS, MONTANA TERRITORY.

On March 19, 1886, I was asked in consultation by Dr. H. W. Foster, of Bozeman, M. T., in the case of Thomas L., age sixty-five, who gave, in a condensed way, the

following history:
In the past three years he has suffered symptoms of tumor of the rectum. Of late on going to stool the extremity of the tumor protrudes, and often becomes gripped by the sphincter, causing painful and annoying symptoms. The discharge from the gut has been, besides fecal matter, often of mucous and blood. He is ever conscious of a foreign body at the anus, which occludes the passage to the extent of preventing the escape of flatus, unless the growth is pushed aside. For the same reason a complete evacuation of the bowel is rarely obtained without first driving the growth above by means of copious injections.
Dr. Foster stated that he had made several digital examinations, and on one occasion he had reduced the prolapsed body. The tumor, he said, was pear-shaped, attached to a pedicle. It measured, in his opinion, about three inches in length and one inch through at its thickest part.
At 11:30 A. M. the patient was placed on the right side, anesthetized by ether, and, the sphincter having been forcibly dilated, a Notts’ rectal speculum was introduced. Inspection revealed at this juncture a dark-red tumor, occupying about all the available space in the speculum. It was seized with a tenaculum, drawn down about three inches, and while held there the pedicle was ascertained to be cord-like, as large as the little finger, very hard, attached beyond the reach of the finger, and apparently to the right lateral segment of the gut.
After this examination the pedicle was firmly tied with a silk thread, and the

growth torn from its attachment by the finger nail.

Mr. L. made a good recovery. The bowels were moved on the fourth day; the ligature came away on the tenth day, and on the sixteenth day the patient was discharged, cured.

The tumor weighed twelve drachms, was two and one half inches in length, and one and one fourth inches in its broadest diameter.

Microscopically the tumor was found to belong to the lipomata.

Virchow, who has studied intestinal fatty tumors especially, states that the irritation they are subjected to is apt to cause them to undergo inflammation, while "others have a hard crust near their periphery which may finally become cartilaginous." This fact obtains in the present instance. Sections from the base of the tumor show the disposition of the fibrous tissue to become converted into cartilage.

The points of interest in the case are (1) the length of the pedicle, which, at the least calculation could not have been less than eight inches; and (2) that the growth should turn out to be a lipoma.

Lipomata of the rectum are of extreme rarity. Allingham, whose work is devoted to the diseases of the rectum, does not mention the subject. No reference is made to lipomata in this part of the body by any of the standard authors on surgery.

I have searched in vain through the files of our bound journals, the most complete of which extend as far back as 1868.

Kelsey, on the rectum, states that Es-march and Moliere have each reported two cases in the practice of others.

It is characteristic of lipomata of the rectum that they are attached high up, and that the pedicle from invagination is apt to contain peritoneum.

THE coming revolution in the theories of digestion must sweep heavily down upon the American pie and the English pudding.

TREATMENT OF PENETRATING WOUNDS OF THE ABDOMEN.

BY

HENRY H. SMITH,
M. D.

OF PHILADELPHIA.

Read in the Section on Sur-
gery, at the Thirty-Sev-
enth Annual Meeting
of the American
Medical Asso-
ciation.

[*Association Journal's Re-
port.*]

Among the marked changes of surgical doctrine, noted in the present century, none is more striking than the opinions held by many in regard to the development and results of peritonitis after injuries that involve this membrane. That inflammation of serous membranes pre-sents rapid changes of circulation, sensi-bility, and secretion, attended by marked constitutional disturbance, has long been admitted, and the apprehensions felt as to the result have been generally regarded as well founded. Yet such fears have not been universal: Marjolin, in 1832, having stated that "he had often seen wounds of the peritoneum cured without any disturb-ing accident; whilst it was well known that paracentesis abdominis could be repeatedly performed without creating peritonitis."

At the present time doubts on this point are much on the increase; it being noted that the pleura can be perforated and serous effusions evacuated, without inflammatory symptoms, whilst Mr. Gay recommends "such incisions into the serous lining of joints as will give free vent to pus or other products." Fraser also asserts "that trau-matic peritonitis, like traumatic pleuritis, is usually circumscribed and limited to the lo-cality of the wound," not producing in every case general symptoms. Gunshot injuries of the peritoneum have also been noted occasionally as unattended by fatal results; thus during the wars of Napoleon I, at the attack on Cairo, in the Egyptian campaign, Larry reported a case of gunshot wound that evacuated two ends of a loop of intestine; in which case, in order to re-lieve strangulation, the wound was enlarged, the intestine returned, and the patient event-ually recovered.

So little apprehension is now felt by many

gynecologists in regard to free incisions of the peritoneum in cases of abdominal tumors, that they lay open the walls of the abdomen from the sternum or umbilicus to the pubis without much fear of the result. Lawson Tait being recently asked for an opinion on the nature of an obscure tumor of the abdomen said, "Cut the patient open and find out," and it was done and the patient saved. "Surgeons," says he, "are beginning to understand that laparotomy is not such a dreadful operation after all." That it is a capital operation he admits—so are many others that no surgeon hesitates to perform, and "the idea," he says, "is rapidly becoming a thing of the past, that the peritoneum is a structure which must not be touched." In the same tone and on the same subject, Dr. Fowler, in an address as Chairman of the Surgical Committee of the Medical Society of Kings County, New York, speaking of the work done by Tait and Treves, says: "But there is yet work to be done before men, and good men, too, can be induced to come out of their shell of conservatism, so called, and with a bold front help to break down the prejudices and misgivings based upon an ill-founded fear of the peritoneum and its behavior under the knife." A very marked demonstration of the tolerance of the peritoneum under the knife was recently shown by Mr. Barker in the London Clinical Society, where an intussusception of the ileum, with complete obstruction of the bowel and acute general peritonitis, was operated on successfully by laparotomy; the inflammatory products being mopped out of the peritoneal cavity with sponges moistened with carbolyzed water, and the wound dressed with salicylated cotton and iodoform; the acute symptoms being at once relieved by the operation. Mr. Bryant, in complimenting Mr. Barker on the success of his treatment, stated he "did not consider peritonitis a bar to the operation."

With such views freely expressed, especially by gynecologists, are surgeons justified,

in any case of gunshot wound penetrating the peritoneum, in opening the abdominal walls, checking hemorrhage, removing foreign substances and giving free vent, by drainage-tubes or other means, to the pus, etc., found in connection with wounds? This important question can only be regarded as yet "*sub judice*." In a recent report of gunshot wound of the intestines successfully treated by laparotomy by Dr. Bull, of the New York Hospital (all the small intestines except the duodenum being examined out on the abdomen, and numerous wounds sutured), the treatment being subsequently discussed, January 27, 1885, in the New York Surgical Society, Dr. Bull stated as a proposition that "given an abdominal wound, with a patient in good condition, and without any symptoms which would enable the surgeon to determine whether or not the intestines have been perforated, he believed it proper first to explore the wound, and if it was found to enter the peritoneum, then to open the peritoneal cavity by operation and endeavor to remedy the damage done." In the course of the debate Dr. Weir, of New York, "believed it justifiable to make an exploratory incision and to examine with the finger," etc., but Dr. Sands said whilst "he should feel strongly inclined to follow the practice adopted by Dr. Bull, he yet thought it impossible, at present, to formulate our experience so that it would enable us to determine positively when to operate."

As this recent debate and recent cases hereafter quoted show that there is such diversity of opinion on this subject as renders the surgeon's treatment open to the charge of malpractice, especially in those cases of gunshot wounds which result from violence and expose the attacking party to the grave charge of murder, it is very important that there should be some expression of professional sentiment that will free the surgeon from the charge in a court of justice that the patient's death was the result of the treatment, and not positively caused by the

wound as first created. I present this question, therefore, to this Section, as the highest authority on surgical doctrine in our country, and hope to elicit the judgment of those present whose attention and experience has enabled them to form an opinion.

In order to show that a *healthy* peritoneum as well as a diseased one can sometimes be freely incised and lacerated without fatal results, I shall briefly allude to three well known-cases. In 1806 Dr. Samuel White, of Hudson, N. Y., removed a silver teaspoon, on August 7, thirty days after it had been swallowed by an insane patient. The spoon had passed from the stomach into the intestines, and was perceptible to the touch. By an incision three inches long, parallel with the epigastric artery and extending upward to near the level of the crest of the ileum, he divided the abdominal muscles, opened the peritoneum with a lancet, caused the lower turn of the intestine, containing the spoon, to protrude, pierced the intestine over the end of the handle with the same lancet, and extracted the spoon with dissecting forceps. He then closed the opening in the intestine with the Glover's suture, dressed the external wound with adhesive strips and lint, and the wound healed by the first intention. There was no Listerism at that date. Renaud, of France, likewise successfully removed a silver fork from a young man's stomach by gastrotomy. Houston reports a case of a woman who fell from a hay-mow upon the handle of a pitchfork, which entered the vagina, passed up into the abdomen, perforated the diaphragm, and passed into the thorax till it struck the second rib. It was withdrawn; the patient lived many years subsequently, and an autopsy showed some of the abdominal viscera had protruded into the thorax. Brigham, of Utica, reported an incision of the abdominal parietes made by an insane woman with a pair of scissors, with which she also cut off seventeen inches of her intestines, and subsequently recovered. Dugas, of Georgia, reported a case in which

the intestines were twice cut by a bowie-knife, closed by the Glover's suture and replaced, the abdominal wound sutured, and the patient recovered under a water dressing. Many similar wounds of the peritoneum and viscera are well known and need not now be cited.

The following cases may be mentioned: "Wound of the Stomach" (St. Martin), by Joseph Lovell, Surgeon General United States Army. *Am. Med. Recorder*, vol. xiii, p. 14, 1885. "Case of excision of part of the spleen" (the patient recovered after peritonitis), by W. B. Powell, M. D., Kentucky. *Am. Jour. of the Med. Sciences*, vol. i, p. 481, 1828. "Penetrating wound of the abdomen and section of the intestinal canal successfully treated on the plan of Ramsdohr," by Zina Pitcher, M. D., United States Army. *Am. Jour. of the Med. Sciences*, vol. x, p. 42, 1832. "Case of gastrotomy; successful," by J. E. Manlove, M. D., Tennessee. *Am. Jour. of the Med. Sciences*, vol. x, N. S., p. 532, 1845. "Perforation of the abdomen (four inches long) by a fence-rail; intestine protruded covered with dirt; cleaned and replaced; recovery," by Robert G. Jennings, M. D., Virginia. *Stethoscope*, vol. 1, p. 490, 1851. "Puncture of the stomach with protrusion of this organ for six hours; nearly the entire stomach protruded. Wound closed by sutures; water dressing; cure," by Chas. Wm. Ashby, M. D., Virginia. *Stethoscope*, vol. 1, p. 660, 1851. "Wounded intestine treated by suture; recovery," by J. J. Chisholm, M. D., Charleston. *Charleston Med. Jour.*, vol. viii, p. 615, 1853. "Incised wound of left side, three inches long, between the eighth and ninth ribs, followed by protrusion of the stomach and its strangulation; reduction and recovery," by W. W. Hart, M. D., Mississippi. *Western Jour. Med. and Surg.*, vol. xi, p. 496, 1853. "Abdominal Wound," by Thomas P. Bailey, South Carolina. *Charleston Med. Jour.*, vol. ix, p. 604, 1854. "Wound of small intestine successfully treated by the interrupted suture," by J. C.

McGee, Louisiana. *New Orleans Med. and Surg. Jour.*, vol. xi, p. 23, 1854. "Perforation of the stomach; recovery;" by C. Haffield, M. D., Charleston. *Charleston Med. Jour.*, vol. x, p. 341, 1855. "Punctured wound of the abdomen; protrusion of intestines; their return obstructed by a band," by A. Fleming, M. D., Philadelphia. *Am. Jour. of the Med. Sciences*, vol. xxxiii, p. 321, 1857. "Incised penetrating wound of the abdomen with wound of and protrusion of intestines; recovery," by J. J. McElrath, M. D., Arkansas. *New Orleans Med. and Surg. Jour.*, vol. xv, p. 182, 1858.

McGuire, of Richmond, at the meeting of this Section in 1881, ably discussed the question of the treatment of gunshot wounds of the abdomen; reporting four cases of shot wounds of the peritoneum that did not wound the intestines, showing that a bullet *could* glide between the intestines without wounding them—an important fact in the prognosis and treatment of these cases, by demonstrating that such wounds, without visceral complications, are not impossible. Death, it is true, occurred in all these four cases; but in Dr. McGuire's opinion "it was the result of blood-poisoning, produced by absorption of the bloody serum poured out by the peritoneum after the wound." Might not a free incision and evacuation of this serum have been useful? In continuing his paper, Dr. McGuire asks, as I now do: "Is it not time that we were trying some other course of treatment in cases of this character in place of the expectant or do-nothing plan generally resorted to?" and he then proposes laparotomy and "a thorough inspection of the injured parts."

Dr. P. S. Conner, of Cincinnati, in his valuable article on this subject, says: "The experience of the past twenty years has clearly demonstrated that the laying open the peritoneum is not as dangerous as had been previously thought; that this serous membrane is a great lymph sac that will absorb septic material most readily and rapidly,

and that for a preventive of a fatal result from such absorption, drainage must be secured. When, then, the symptoms clearly indicate that extensive bleeding has occurred or is taking place, or that the stomach or intestines have been opened, it certainly seems to be proper and the surgeon's duty to perform laparotomy, turn out the clots, cleanse the cavity, and provide for the ready outflow of any fluid that may afterward be poured out."

That this opinion of the liability of absorption by the peritoneum of the diseased products of injuries is sound, is proved by the anatomical study of the tissues, it being well known since the days of Bichat that serous membranes are only a modification of connective tissue, and that there is an identity of functions and affections between the two, as both are continually engaged in the great work of exhalation and absorption; the main difference being that the peritoneum is a more condensed membrane than connective tissue. The peritoneum has also a basement membrane and an epithelium, and is furnished with a great abundance of exhalant pores and absorbents which carry on their functions with great activity. This has been proved by their readily receiving a mercurial injection, which diffuses itself over their whole surface and causes the membrane to appear as if formed entirely of such vessels. Mascagni, whose beautiful plates are well known, asserted that the power of absorption continued in this membrane many hours after death, and Leidy, several years since, established the existence of minute foramina of the peritoneal coat of the stomach; these orifices being, in Horner's opinion, probably formed by meshes of lymphatics; just as the gastrointestinal follicles are formed by meshes of veins. Unquestionably some communication exists between the arterial system and the peritoneum, as proved by exhalation and morbid phenomena. Bleuland, and Vanderkolk, at Utrecht, in Holland, have made preparations which prove that the per-

itoneum contains blood-vessels. A drawing of the capillary vessels of the peritoneum covering the liver, minutely injected, is also furnished in Smith's anatomical atlas. In the healthy state, the peritoneum is not sensitive, as may be proved by the impunity with which it may be irritated in living animals; though nerves were traced in it by Purkinje, and in the pleura by Bourgerie. When serous membranes inflame "they become, as is well known, acutely sensitive, though they resist inflammation for a long time; but when inflammation extends to them, the portion of the peritoneum nearest the seat of disease manifests it by adhesions and disorganization, without the whole membrane becoming involved." The establishment of peritonitis often becomes important in connection with the treatment of wounds of this membrane, and it should not be forgotten that percussion gives a clearer sound in the commencement of peritonitis than in health, and that this clearness day by day becomes more obscure, especially at the lower part of the abdomen, whilst auscultation reveals a friction sound (*bruit de frottement*) analogous to that of pleurisy or pericarditis.

Knowing, then, the active absorbing surface that exists in the peritoneum covering the walls and contents of the abdomen, and the rapidity with which blood-poisoning follows absorption of diseased products, an additional reason is presented (only, it is true, on theoretical grounds) for the evacuation of such products, the cleansing of the tissue and the destruction of diseased germs by the judicious use of antiseptics, and again the question presents itself, how is this, in the case of wounds, to be best accomplished? This question is yet awaiting practical facts and the history of cases in which it has been performed, whether successfully or otherwise, and it is to be hoped that there are some present who can offer them. The extended information furnished by the war of the Rebellion is graphically described by the late Surgeon Otis, of our

army, in the "Surgical History of the War," and I give it as his opinion "that laparotomy will henceforward be employed with increased frequency, not only in the treatment of morbid growths, but also in obstructions and wounds of the abdominal organs."

Admitting, then, that this operation may be correct in certain cases, it is important to remember that when it is performed, the incision should generally be in the line of the linea alba, and be free enough to explore the injured region; that a clear and decided statement should be made by the surgeon to the patient or his friends of the very serious nature of the wound and the uncertainty of the result; presenting clearly the fact that the operation will possibly give an additional chance of recovery, the patient subsequently wearing an abdominal supporter to guard against hernia. Under anesthetics, with the caution and technique pursued in laparotomy for the removal of tumors, and with the knowledge, as before stated, that in cases of a judicial character, the defendant's lawyer is sure—if possible—to charge death on the surgeon, rather than on the original wound, the treatment of wounds of the abdomen by laparotomy will doubtless be carefully weighed by the evidence in its favor, now slowly accumulating. To collect this evidence, and show the present sentiments of experienced surgeons on this mode of treatment, is the object of the discussion now opened.

DISCUSSION.

Dr. B. A. Watson, of Jersey City, said that if it could be determined that the intestine was perforated, laparotomy was demanded, as this procedure would limit fecal extravasation and control hemorrhage; that the difficulty was in making the diagnosis, and as this was not always possible, it should be remembered that the opening of the abdomen in gunshot wounds did not materially increase the danger. If the cavity was opened, perfect antiseptic precautions should be employed, and the cavity thoroughly

cleansed. That it was not prudent always to wait until dangerous symptoms had developed before operating. The consent of the patient should be obtained, and the operation, if undertaken, should be thorough, and should include the removal of all albuminous fluids from the cavity and an accurate and exact examination made to determine fully the damage inflicted by the wound, and a perfect cleansing of the parts made.

Dr. E. H. Gregory, of St. Louis, said that the condition of the patient, rather than the character of the wound, should control the practice adopted; he waited until urgent symptoms had developed and plainly expressed a need for operative interference. Where the intestinal canal was undoubtedly opened, then the operation was always proper. He did not think that the presence of inflammation, the result of the injury, influenced unfavorably the result of operative interference, for able practitioners believed now that opening the cavity of the abdomen and thoroughly cleansing it with washes was good practice in acute peritonitis; he further stated that traumatic inflammation was limited and not diffused; that the wound from the injury and the wound from the operation would both produce local inflammatory process, and unless some other agent, possibly sepsis, intervened, the inflammation did not necessarily result fatally.

Dr. J. B. Hamilton, United States Marine Hospital Service, said that he believed dangerous symptoms did not always develop until death was imminent; that he would not wait for such signs, but where he believed the intestinal canal had been wounded he would proceed at once to an operation without waiting for inflammation. He related a case which came under his observation, where a man suffered from a gunshot wound of the abdomen with perforation of the intestines, in which he waited for the development of urgent symptoms, and the patient died. Subsequently another case

similar in character came under observation, and was subjected to immediate laparotomy, and in which eleven wounds were found in the small and two in the large intestines. This case recovered after the operation.

Dr. H. O. Marcy, of Boston, thought that the hemorrhage following a puncturing wound was often a concealed one, and that fecal extravasation or hemorrhage gave rise to septic infection and inflammation, and he considered the exploratory operation justifiable. Speaking of the sutures to be used in intestinal wounds, he said that fine chromatinized cat-gut sutures were most applicable; that he had made excisions of the gut and united them by double lines of continuous sutures.

Dr. D. W. Yandell, of Louisville, remarked that some patients would get well under any plan of treatment; that he believed the operation should be done at once or not at all; that the size of the ball had but little to do with the demand for the operation, and further stated that, in his opinion, patients frequently died without the development of urgent inflammatory symptoms.

Dr. R. A. Kinloch, of South Carolina, stated that he believed he was the first man who opened the abdominal cavity and sutured the intestinal canal for gunshot wounds of the abdomen. He also claimed that he was the first to free the bowel from the adhesions at the site of the artificial anus and to reunite them. He thought fecal extravasation was not a necessary consequence of penetrating bullet wounds, even where they traversed the intestinal canal, but that he could not believe, however, that traumatic inflammation was always limited, as it extended rapidly in the abdominal cavity, possibly as a result of septic inflammation.

Dr. J. McF. Gaston, of Georgia, said that much depended upon the ability to arrive at a clear diagnosis of the extent and nature of abdominal wounds preliminary to laparotomy. In punctured or gunshot wounds of the abdomen the doubt as to ex-

isting lesions of the intestinal canal may, in most instances, be resolved by passing two tubes through the opening, which should be enlarged if requisite for this purpose; one of which is connected with a Davidson's syringe, and of sufficient length that it may reach the most dependent portion of the abdominal cavity, leaving only the terminal opening; while the other, of corresponding proportions or somewhat larger, should have openings upon the sides for two or three inches at the lower end. A saline solution containing one ounce of the chloride of sodium to the quart of water, at a temperature of 100° F., should be thrown in and allowed to pass out continuously through the escape tube, so as to carry off any accumulation of blood or any fæcal extravasation. If the outward flow should be arrested by clogging of the fenestrated tube, it must be removed and cleared of obstructions, either by clots of blood or fæcal matter, when it is to be replaced and the process continued until the water returns free from admixture with the contents of the abdominal cavity. The tube that connects with the syringe should then be removed, and the remaining fenestrated tube attached to the other extremity of the syringe, when, upon working it, a suction through the tube will remove any surplus fluid from the cavity of the abdomen.

While this process ought to remove either blood or the extravasated contents of the alimentary canal, the absence of the latter admixture in the fluid discharged can not be relied upon for a final decision as to penetration of the intestinal wall, as the opening may be so small that the hole will be closed up by the natural contractility of the muscular tissue of its coats. But apart from the aid in diagnosis, this measure is advisable as a curative agency in removing sanguineous effusion, and this saline solution is not found to prove detrimental, but, on the contrary, salutary to the peritoneum.

In regard to awaiting the development of symptoms, as recommended by one of the

speakers, after diagnosis of intestinal perforation, there are examples of favorable results; but with the light before us, an exploratory opening of the abdomen is warrantable in any case presenting indications of a penetrating wound of the coats of the intestine. The speaker referred to two cases of abdominal section in his personal experience, which terminated fatally from the delay of one day and three days respectively, during which peritonitis had become developed and constitutional symptoms supervened from the extravasation of pus in one, and the sanguineous effusion in the other. Hence it was thought best to operate at the earliest practicable period after such injuries.

IMPROVEMENTS IN SURGERY.

The opponents of every innovation in surgery are the people who rave against antiseptics as a surgical precaution, while those who employ antiseptic methods are revolutionizing bone surgery, and making injuries of the abdominal and pelvic viscera as simple and tractable as surface wounds. Compound fractures of the limbs are no longer expected to linger through a prolonged and dangerous course of suppurative action with the fear of gangrene, septicæmia, and finally death constantly harrassing the patient, and bringing great mental anxiety, loss of rest, and the consequent impairment of nerve force, and excretory function. Antiseptically treated these fractures are as simple lacerated or penetrating wounds, healing kindly and without that evidence of wound poison formerly known as *laudable pus*. Penetrating wounds of the joints seldom now result in any more permanent effect than is fairly to be expected from the extent and character of the tissue broken down in the wound; while amputation has given place to excision. No suppuration or plastic synovitis is expected, and, ankylosis is now as rarely observed as recovery from such injuries under old and unskilled methods of practice.

EYE, EAR, AND THROAT.

CATARRHAL
INFLAMMATION
HERETOFORE UN-
DESCRIBED.

BY

P. W. LOGAN, M. D.,

KNOXVILLE, TENN.

Read to the American
Rhinological Association,
at St. Louis,
Oct. 6, 1886.[*St. Louis Medical and
Surgical Journal.*]

I have seen a class of cases in which there exists simultaneously hypertrophy and atrophy of the mucous membrane of the nose, nose and pharynx, or nose, pharynx, and larynx. Some were apparently so slightly affected, as far as structural changes and

other evidences of inflammatory action were concerned, that some observers would conclude that the affected structures were healthy. This mixed form does not present the usual characteristics of either the hypertrophic or atrophic variety of catarrhal inflammation, and the accompanying conditions seem to stop short of either condition as described by authors. The mucous membrane does not appear dry, and yet there is not sufficient secretion to normally lubricate the surfaces, and a dry sensation is complained of. I have seen, in children affected with this form, and in which the hypertrophy predominated, an excess of nasal secretion, and at the same time, there was a sensation of dryness. The mucous membrane in adults presents the appearance of atrophy, especially in the pharynx, appearing paler, smoother, and apparently thinner than the normal, except here and there an occasional inflamed, circumscribed spot of thickened structure with enlarged blood-vessels; and, sometimes, an involvement of the follicles as we see in so-called follicular pharyngitis.

A prominent and, I might say, almost pathognomonic symptom of this mixed form is a tendency to a dry sensation of the nasal, pharyngeal, and frequently laryngeal mucous membrane. I have usually found the atrophic element predominating in adults, and in children the hypertrophic. Yet in both the treatment adapted to atrophic inflammation is, I am sure, the correct one.

Astringents are not indicated, and, in fact, aggravate the trouble. There is diminished secretion in this trouble, and it is generally purulent in character. Hot, dry air, or an atmosphere containing dust, smoke, or other foreign matter, seems to aggravate the trouble, as also overheat from any source. Furnace heat or dry stove-heat is especially injurious, as it tends to further increase the dryness of the affected structures.

So far no author has mentioned this form of catarrh, yet it is one which occurs quite frequently. Proper classification of the different varieties of catarrh is important from the fact that we can not treat them all alike. A hypertrophic condition of the mucous membrane of the upper air passages, accompanying an atrophic condition of the same structure, will not yield to the treatment generally resorted to in uncomplicated cases. Dr. Seiler's assertion that the hypertrophic and atrophic forms may arise independently, or that the atrophic may be a sequel and consequence of the hypertrophic variety, whilst generally conceded, is not a well proven fact.

If these conditions arise separately and independently of each other, the atrophic condition is not always nature's cure for the hypertrophic condition. The etiology of these two diseases seems irreconcilable. The class of cases referred to in this paper, however, stop short of a fully developed atrophic or hypertrophic state with the usual accompanying symptoms, when considered separately.

The point I wish to make is, that we frequently meet with a mixed form of atrophic and hypertrophic catarrhal inflammation. Notwithstanding the accompanying hypertrophy, which predominates in children, in order to afford relief we must adopt a treatment suitable to the existing atrophic condition, regardless of the accompanying hypertrophy. But the treatment must be less stimulating than in a case of purely advanced atrophic catarrh attended with dry, incrustated secretions. The treatment should be mild,

OBSTETRICS AND GYNÆCOLOGY.

PERINEAL
LACERATIONS.

BY
ARCH. DIXON, M. D.
Read to the McDowell Medical Society, at Henderson, Ky., Oct. 14, '86.

In treating of lacerations of the perineal body, I purposely exclude vaginal orificial tears, which are almost inevitable in

primiparas, and also such rare accidents as central rupture, but confine myself to the more familiar, but not less important, lesions of contiguity ranging from mere slitting of the fourchette to rupture into the bowels.

That these cases have not, at least up to the present, received that attention which they demand, is shown by the large number of women who seek relief from sufferings due to this potent factor of uterine mischief.

There can be no doubt that this accident occurs often in cases under the charge of midwives and, I am sorry to say, in the hands of many physicians who do not, at the time, recognize the lesion.

Two years ago, at Springfield, Ill., during the meeting of the Mississippi Valley Medical Association, a discussion was had upon this subject, and several medical gentlemen made the statement that they had never, to their knowledge, had a rupture of the perineum to occur in their practice, and I remember one old, gray-headed doctor made the statement to Dr. Joseph Eastman, of Indianapolis, that he had delivered several hundred women and had never known this accident to occur. Unfortunately, it turned out that he had never examined his patients to see that the perineum was or was not torn, and doubtless, to-day, many a poor woman is a victim to his want of knowledge.

The custom hallowed by age of tying the knees together and hoping for the best in cases of this kind is, I grant, often followed by no immediate ill effects. but when now and again, as inevitably they must, the torn surfaces become sodden and ashy gray, the precursors of puerperal septicemia, then probably it dawns upon our minds that had modern surgical ideas been brought to bear

soothing, gently stimulating, antiseptic and protective so far as local applications are concerned. I have found the best application to be vaselin, containing two to five drops of oil of eucalyptus to the ounce, applied by means of spray tubes. The condition and the effect produced govern the frequency of the applications. One of our best guides in this mixed form is the returning moisture of the mucous membrane, or the lessened dry sensation.

When the dry sensation is relieved and the appearance of the diseased structures improved, I have found it best to discontinue treatment so as to allow the condition to grow well by degrees. If there is a return of the trouble, sufficient treatment is given to put the parts in a condition to improve. It is impossible to re-establish a normal condition in a short time, hence the necessity of following the treatment from time to time. In addition, tonics, laxatives, and diuretics will aid considerable in removing the hypertrophied structures and giving nutrition to the atrophied.

Notwithstanding what the authorities say, I am inclined to the opinion that, as a rule, hypertrophy exists prior to atrophy, and that after atrophic changes begin in a hypertrophied structure, the treatment usually resorted to in cases of hypertrophic inflammation is not suitable for the relief of the mixed form. In other words, remedies directed to the relief of the atrophic condition will not aggravate the accompanying hypertrophy, but will relieve both the hypertrophy and the atrophy. Our treatment, therefore, must be directed to the relief of the atrophic condition always, when atrophy exists, regardless of any hypertrophy that may be present.

THE practice of medicine can never be reduced to an exact science for many reasons, but much of the rubbish, called "experience and observation," may be eliminated by a more general recognition of the lights that laboratory experiments have shed upon pathology.

upon the case it might have had a different ending. There are certain patients in whom from a weakened condition of the tissues, due either to a cachexia, such for example as syphilis or local inflammatory changes, lacerations are unavoidable.

There are quite a number of cases on record where rupture of the perineum has been due to traumatism aside from any connection with labor; thus, Parvin, in his article on "Injuries and Diseases of the Female Genitals," *International Encyclopedia, Surgery*, volume vi, says: This condition has been caused by the extraction of a large uterine polypus from the vagina of a multiparous woman; by falling so that the perineum has struck upon the upper part of the back of a chair; by injury from the horn of a bull, and that of a goat, etc., etc.

Occupying a chief position amongst the causes is the unskillful use of the forceps.

Mundé, "*Minor Surgical Gynecology*," says: Fortunately complete ruptures are infinitely more rare than partial, while the latter are usually caused by the size or rapid passage of the child's head or shoulders. The complete ruptures are generally caused by the precipitous extraction of the head with forceps in the hands of a careless or unskilled operator. And this opinion is coincided in by most, if not all, of the most prominent gynecologists.

Wielded by strong hands, regarding not in what direction traction is being made, the forceps are instruments powerful for evil. On the other hand, their intelligent use in correcting a malposition, diverting misdirected force, or supplementing feeble propulsive efforts, gives them a place amongst the most valued resources of our art. "Considering in general the ætiology of this injury," it may be said that in the great majority of cases it is due to too rapid delivery of the foetus—delivery before the tissues have had time to undergo physiological softening and stretching. (Parvin.)

The element of time is a very important one in ensuring a successful termination to

the second stage of labor. In rapid labors there is neither the gradual moulding of the presenting parts so necessary, nor is there that due accommodation of the maternal passages so essential to their integrity. Long continued pressure upon the maternal tissues, by initiating necrotic changes and subsequent loss of substance, often brings about this accident. Barnes, and Schroeder lay stress upon the fact that long continued pressure may produce such changes in the perineal tissues that they tear almost as easily as wet paper. Dr. Dewees long ago, and J. Matthews Duncan more recently, pointed out that the perineum, though apparently perfect at the close of labor, may have been subjected to such injurious pressure by the long delay of the head at the vulva that sloughing afterward occurs, and that in a few days a more or less complete laceration is evident. Small and deformed pelves, malpresentations, cicatricial contractions, and rigidity of the vulvar outlet, are also factors in the production of perineal rupture.

When alluding to the injury likely to follow rapid labors, I should have mentioned in this connection the harmful effect of giving, as is frequently done, in a routine fashion, ergot. It is impossible to gauge or control its power upon the uterine muscular fibers, and it can not be doubted that in many cases it has been followed by the consequences now under consideration.

The causes above enumerated find their strongest expression in primipara. The influence which this accident has upon the health of the lying-in woman naturally is divided by time into the immediate and the remote, and of the former puerperal fever occupies the first position. The richness with which the peri-vaginal tissues is endowed with lymphatics and veins offers, once a breach of tissue is accomplished easy access for the imbibition into the systemic circulation of septic materials. There are few who now look upon puerperal fever as a specific disease, but rather look upon it as a blood dyscrasia, having for its exciting

cause an autogenetic and heterogenetic source. And whether looked at by the light of modern uterine pathology or clinical experience, it must be confessed that in most instances a probably unnoticed tearing and laceration of the absorbent vessels has been the *fons et origo mali*. The vitiated secretions from torn and bruised surfaces, and under certain conditions even the lochial discharges doubtless exercise a toxic influence upon the parturient woman, and it is to this view, of the majority of examples of puerperal fever, the medical opinion of the present day is tending, and upon which has followed, and must follow, practice fraught with nothing but benefit to the community. The acceptance of the principle by the profession at large, that every tear of the maternal passages should be treated according to modern surgical procedure, will do very much toward reducing childbed mortality. Among recent writers on the subject there is none who, from the commanding position which he occupies, can speak with greater authority than Dr. Thomas, who, in an address before the New York Academy of Medicine three years ago, with convincing eloquence demolished the specific theory, and showed how in most cases the inception of puerperal septicemia was traceable to the mal-influence of lesions of the genital tract. Leaving this, which after all is debatable ground it must be considered by every one familiar with the subject that the presence of perineal lacerations interferes with uterine and vaginal involution, planting thereby the seeds of future pelvic troubles. Of the remote effects of these vents, there is some divergence of opinion, bringing, as it does in great measure, on the part which the perineum plays in support of the uterus. Doubtless every physician sees now and then cases even of complete procidentia with perfect perineal bodies, but these are not comparable to the large number applying for relief with varying degrees of uterine prolapse and histories and evidences of perineal lacerations. The rupture to any ex-

tent of the muscular conjunction which takes place at the perineum must, by interfering with the solidarity of the sacral segment of the pelvic floor, allow the anterior vaginal wall to bag, and following it the uterine body and appendages. When we examine the anatomy of the female perineum and maternal outlet and the relative anatomy of the genito-urinary organs, we shall find that the posterior fibers of the sphincter vaginæ, and the anterior fibers of the sphincter ani are inserted into the tendinous structure and fascia of the perineum. When a complete rupture takes place, the sphincter ani contracting from its posterior insertion on either side of the coccyx, draws the anterior wall of the rectum backward; the fibers of the sphincter vaginæ being torn from their posterior attachment, lose all power of drawing the posterior wall of the vagina forward and upward; the transversalis perinei draws the lacerated edges outward and upward, widening the gap made antero-posteriorly; and the vagina, which normally is a closed canal, becomes a mere chasm and the floor of the pelvis is lost. The posterior wall of the vagina becomes straightened, and the tissues being relaxed, permit the formation of a pouch at the lower portion immediately above the internal sphincter, in which the forces accumulate, and vaginal rectocele soon follows drawing on the posterior *cul-de-sac* of the vagina, and changing the axis of the uterus, which now hangs perpendicularly over the external outlet. All support being lost, it descends drawing with it the anterior wall of the vagina and the bladder. A *cul-de-sac* of the bladder is soon formed in which the urine is retained, and the bladder can only be completely emptied by the patient introducing her finger into the vagina and temporarily replacing the uterus. In addition to her physical sufferings, a woman in such a condition is totally unfitted for the marital relation. It is upon the woman whose daily labor is hard and exacting that this condition presses most heavily. Prolapse or procidentia means to

her crippled usefulness, and in many instances total inability to follow the occupation which has brought her bread.

When the anal sphincteric fibers have been torn incompletely, incontinence of flatus and liquid *fæces* is produced, with liability to frequently recurring attacks of diarrhea. With complete rupture there supervenes a condition so intolerable that its sufferers are ready to loath even their very existence.

The treatment of those cases resolves itself into the preventive and the curative. The first and most important presupposes an intelligent appreciation of the mechanism of parturition, and carrying its lessons into practice. The correction of mal-presentation and of misdirection of propulsive force, preventing precipitate labor by direct backward pressure upon the presenting part, the judicious use of chloroform, injunctions to cease voluntary efforts, avoidance of ergot and supplementing, in other cases, the muscular contractions by careful use of the forceps, briefly summarize the main indications.

When laceration is impending and unavoidable, its extent may be limited by notching either side of the raphe. The accident having happened, unless extremely trifling and tegumentary, its immediate repair is demanded, and toward the general adoption of this practice when needed, no parturient woman should be left without a visual examination of the vulvar outlet being made, or at least the integrity of the perineum should be ascertained by passing the index finger into the rectum and the thumb into the vagina; in this manner a tear, if it be at all extensive, can be easily recognized. Stunned by the passage of the child, the parts are less sensitive than later and the bringing together of the torn surfaces is a matter not difficult of accomplishment. The relaxed state of the parts also favors apposition. If the time for the primary operation is allowed to pass, which should never be the case, it will be better to wait until after the cessation of lactation; the pro-

cedure is then more or less troublesome according to the extent of tissue involved and the general health of the patient. When the laceration is incomplete vivification of the cicatrized surfaces, accurate apposition, and careful after-treatment make this operation one of the most successful in surgery; but if the recto-vaginal septum is more or less destroyed, its renewal requires considerable skill.

In reviewing the different operations recommended for the restoration of ruptured perineum, either primary or secondary, none have struck me so favorably as that of Prof. Simon, endorsed and taught by Schroeder, and in my last three operations I have adopted it with perfect success. For the following description of the technique of Simon's operation I am indebted to Dr. A. R. Jenkins, who became familiar with it in Schroeder's clinic at Berlin.

In primary cases the patient is anesthetized if necessary, and placed in the lithotomy position. Simon's speculi are introduced and the parts put upon the stretch in order to thoroughly expose the lesion; after thoroughly washing out and disinfecting the vagina, the ragged edges, if such there be, of the torn parts should be trimmed evenly so that direct and close apposition may be effected; a curved needle, carrying No. 1 English catgut, is introduced at the apex of the laceration and securely tied, then with the continued stitch passing in and out on either side of the middle of the tear, the parts are brought together down to the fourchette; the line of stitches is then carried back toward the apex, and thus until the entire laceration is closed. The stitches are laid about half an inch apart in either direction, and the aid of an assistant is required to take up the slack after the introduction of each stitch, and to bring the parts into close apposition. The stitches through the mucous membrane should be smaller and closer together. A broad, deep stitch is then taken with heavy carbolized silk, within the vermillion border of the

labii and drawn tight. The vagina is then packed with iodoform gauze or cottonwool, which answers better than vaginal injections, the advantages being derived of rest to the parts, pressure, and dryness. This need not often be changed. The urine should be drawn night and morning, or better, a self-retaining catheter (Goodman's) introduced with attached tubing to keep the patient free from urinous dribbling.

The silk stitch can be removed in three or four days, and the patient's legs be freed on the fifth or sixth day.

In secondary operations the mucous membrane is incised down to the membrana propria, and then snipped off with the fingernail after the manner of small scissors, being brought into use to remove granulations and cicatrized tissue, the operation is then the same as in primary cases. A small stream of carbolized water (three per cent) should play over the wound during the entire operation.

The advantage of the continuous catgut suture is obvious; by far the greater number of stitches are intra-vaginal, none of which have to be removed—a matter of no small moment both to the patient and operator; there is less tendency to inflammation and after-swelling, and no pocketing of the posterior vaginal-wall within the vulva, and, I believe, a thicker, stronger, and better perineal wall is built, and consequently a better vaginal and uterine support is given.

LET THEM UNITE.

The great objection some cynics have urged against the severance of obstetrics from gynæcology as a specialty, is that all general practitioners are likely to have occasionally to perform accouchment at the bedside. According to the claims of the gynæcologists, most of their business is to repair the blunders of the obstetricians. This clearly enough suggests grounds for even a closer compact, which, being accomplished, may yet lead to the birth of a new specialty, and the creation of another section in the American Medical Association.

PATHOLOGY AND HYGIENE.

THE MODERN HISTORY OF CREMATION.

BY

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Italy may be considered the pioneer of cremation in modern times, for there, for the first time, incineration was practiced in a systematic and improved manner, and in no land have the cremationists been so active and energetic in

advocating the reform as in this.

The *Abbé Scipion Piattoli*, of Modena, published an important work in 1774 in which he traced the history of the disposal of the dead among various people and in divers epochs. The book of Piattoli, which also, of course, treats of cremation, was translated later on into the French by Vicg d'Azir, and forms part of the sixth volume of the works of this illustrious author, collected and published in 1805 by M. Moreau de la Sarthe.

Moleschott was the first to propose cineration in 1852. On the 11th of January, 1853, at the memorable session of the Academy of Sciences, Arts, and Letters of Padua, *Ferdinand Coletti*, read his first essay on the incineration of human bodies, which comprised, on a few pages, a complete exposition of the subject. Nine years passed before Coletti found another favorable opportunity to revert to the subject; this was furnished by the war between Austria and Prussia in 1866, and that between Italy and Austria. He then proposed and advocated the burning of the soldiers and horses on the battlefield: for the benefit of public health.

Salvatore Morelli, a distinguished patriot, presented, in 1867, a project to the chamber of deputies of Italy for a law tending to adopt cremation as the best means of destroying human bodies.

The important question was discussed at several health and medical congresses, between 1858 and 1869, by Du Jardin, Coletti.

Bertain, and Castiglione. At an International Medical Congress, held at Florence in 1869, pleas were made for cremation by Professors Castiglione and Coletti. The opinion of these authorities was supported by a resolution of the Congress expressing a wish that "every possible means should be employed to obtain legally, in the interest of the laws of hygiene, that the incineration of bodies should be substituted for the present system of inhumation." A similar vote was also passed at a Congress held in Rome in 1871.

On the 1st of August, 1872, Prof. J. G. Polli read a monograph on cremation before the Institute of Letters and Sciences, of Lombardy. The first incineration in modern Italy took place in 1873, when the Rajah of Kellapore was burned at Florence.

The newspaper *Iron* states: "Dr. G. Pini assisted at the cremation at Florence. This was no mere experiment, but the funeral rite of an Indian Prince, the Rajah of Kellapore. On the banks of the Arno were enacted the ceremonies, nightly performed on the banks of the sacred streams of India, the Ganges, the Krishna, or the Tumma. At the hour of midnight the mortal remains of the Indian Prince were carried to the banks of the river. The funeral pile consisted of a heap of wood, about five feet square, firmly fixed and secured to the ground by seven bars of iron; a second heap of wood was thrown loosely around. After certain religious ceremonies, the pile was powdered with camphor and other aromatic substances, and the dead Rajah was laid upon it. The body was annointed with pure naphtha, the features covered by a mask of some greasy substance, and all the limbs covered with resinous matter, betel leaves, perfumes, and powdered sandal wood. The corpse was then covered with more layers of wood, alternated with inflammable substances, and the next of kin to the Prince set fire to the pile. Although the flame was fanned by a strong wind, the body was barely consumed at 7 o'clock the next morning.

"At ten, when the fire had almost en-

tirely burned out, nothing remained but a heap of ashes. An India Priest collected a small quantity from the center of the heap. The remainder was thrown to the wind in the direction of the current of the Arno.

"Although this operation was attended with the success constantly witnessed in India, it must be admitted that it proved not only tedious but expensive. Ten hours consumed in the destruction of a human body must appear to western nations an enormous space of time, and the cost of precious woods, resins, and oleaginous substances, would in itself act as an efficient bar to the general adoption of the Indian method."

As early as April, 1873, Senator Prof. Carlo Maggiorani, in a letter to Prof. Giovanni Polli, pronounced in favor of burning the dead. A discussion between Prof. Burci and Minister Lanza in the senate, concerning the first chapter of Title XI, "on graveyards," in the Codex Sanitarius was followed by the alteration of Article 185, whereby the syndic was authorized to permit burials in family vaults which were situated in an open field, far from the vicinity of houses, and the Minister of the Interior was given authority to permit other modes of disposal of the dead, the preservation of bodies, or their destruction by fire in exceptional cases. This law was passed on the 6th of September, 1874.

But there were so many applications that finally the right to grant permissions for cineration had to be transferred to the prefects. In 1878 cremation was admitted to the Italian sanitary code. In the same year the quinquennial Secco-Comneuo prize, offered by the Royal Institute of Science and Letters of Lombardy to the advocates of cremation in the following terms: "Indicate a method of cremation of dead bodies, such as may be substituted for the present method of inhumation, in order to prepare the way for this hygienic reform," was awarded to Mr. Frederick Siemens, of Dresden, who also received a prize of honor from the Milan Cremation Society.

On the 3rd of December, 1872, Prof. G. Polli, an inventor of a crematory furnace, and one of the foremost incinerationists of Italy, received the following letter from Baron Albert Keller, who, though of German descent, was an Italian citizen and a resident of Milan, and above all an enthusiastic patron of cremation:

"Desiring to contribute my share toward the cremation movement you have inaugurated, I have deposited 10,000 lire for the incineration of my own body, hoping that when I die no obstacle shall stand in the way of the carrying out of my last and fervent wish. When the costs of my cremation have been defrayed, I should like to have the money remaining used to form a fund for the erection of a building exclusively devoted to the burning of the dead. You would also execute a cherished wish of mine by organizing a society of cremation, to be composed of humane and unprejudiced persons, who would set a good example by signing a written promise to dispose of their remains by fire; and depositing a sum, as a pledge of their sincerity, that should be uniform for each member.

"I am firmly convinced that such a beginning would clear the way for cremation. When writing this letter I had in view your exalted standing in the world of science, which qualifies you eminently to judge of the feasibility of my projects.

"ALBERT KELLER."

The Baron died January 23, 1874, at Milan. Dr. Giovanni Polli, the noted Milanese chemist and physician, immediately petitioned the Government to permit the cremation of the deceased. The petition was not granted, not because there was any special law prohibiting cremation, but owing to an antagonism of the authorities, which was generated by a dislike of the practice. Nothing remained therefore but to embalm the nobleman, and to await the time when the Government would discontinue its opposition to incineration.

Mr. Eassie describes the cremation of the Baron as follows:

"For many years this gentleman had occupied himself in considering the most natural mode of sepulture, and coming to the conclusion that cremation was the one desirable, he directed by will that his remains should be so disposed of, and caused to be built the edifice and apparatus in and by which his body was ultimately reduced to ashes. A period of two years intervened between his death, however, and the cremation, and this is less traceable to the existence of any law forbidding the practice than to a certain opposition of the authorities, who themselves disliked it. For there appears to be no legal bar in Italy to the performance of this rite, provided it be practiced in such a manner as shall satisfy all the conditions of a religious ceremony. The difficulties were eventually overcome, mainly owing to the intelligent and active support of the Chevalier Labus, the Superintendent Assessor of Cemeteries. The cremation was performed on the 22d of January, 1876, the anniversary of his death, and was attended by representatives of the municipal authority, some high government officials, representatives of several scientific institutes, senators, deputies, journalists, priests, and others. The body was conveyed upon a funeral car, and was enclosed by a wooden coffin. At the entrance hall of the cemetery the body was met by the Rev. H. Pavia, and a funeral service began which was concluded under the roof of the new building.

After the members of the family present had authorized the inauguration of the proceedings, the body was placed in the urn, and was immediately acted on by the fire without any of the bystanders being aware that the process had commenced. A small flame of coal gas only was visible, and purposely so, during the time of cremation at the top of the urn, as a symbol that the work was proceeding. After the religious ceremony was concluded, Professor Cleri-

cetti explained the scientific action of the apparatus used that day for the first time. An address by Professor Coletti, of Padua, followed this, and Dr. Pini then gave a sketch of the origin and progress of the reform. By this time incineration was complete, the process in this case lasting an hour and a half, and in an instant the fire was extinguished. Upon the following day the ashes were removed from the crematory chamber to the cinerary urn placed in the center of the Keller's family chapel. The ashes deposited in the urn, and to which the body had been reduced, weighed about six pounds."

Keller's "Tempio Crematorio" became, in accordance with the testament of the deceased, after his cremation, the property of the city of Milan.

The Italian clergy opposed incineration but very little. In the capital of Lombardy a distinguished prelate even declared that the burning of the dead is in no wise contrary to the dogma of the church, and here one also can witness how priests accompany the body to be incinerated to the *Tempio Crematorio* where they say a last prayer; indeed proof of tolerance and genuine Christianity.

The first scientific conference on cremation was held on the 6th of April, 1874, in the hall of the Public Garden at Milan, and had a great influence on the progress of the reform in Italy. Over 600 persons were present at this meeting. After addresses by Drs. Pini, Sacchi, Coletti, Amati, and Masatti, the audience listened to the reading of a letter from Professor Buccallati on the relation of cremation to religion and canonical law; the Professor gave it as his opinion that from a religious standpoint no objection could be raised to the practical adoption of incineration. The assemblage then voted in favor of permissive cremation, and the session was closed amid great applause.

The Fourth Medical Congress held at Milan on the 5th of September, 1877, en-

dorsed cremation, stating that it is a veritable scientific progress which has the advantage over inhumation in corresponding to the exigencies of hygiene. It also expressed its conviction that incineration in no way offends against the affection of families for their defunct, the respect and veneration for human remains, and the religious principles of the surviving.

On the 21st of September, 1882, a congress of all Italian cremation societies was opened with due solemnity at Modena in the presence of a great number of invited guests, representatives of the cities of Milan, Turin, Padua, Lodi, Genoa, Bologna, Brescia, and Cremona, and delegates from twenty-four cremation societies. The first act of the congress was to organize a league of Italian cremation societies and to approve of a constitution.

The Milan cremation society was organized chiefly through the efforts of Drs. Pini and Cristoforis, the latter being elected president. As the Polli-Clericetti operations in the crematorium had not given general satisfaction, the gasometer behind the temple was removed, in 1880, and suitable wings were built. Two furnaces were then erected, one being built on the Gorsini system, and in which the ordinary cremations are performed, and the other on the Venini system, where cremation of the remains of persons who died from contagious diseases, and of strangers, are allowed to take place. The building also has three columbaria, one on each side of the crematorium, and an ordinary one in the vaults below.

Up to the present time 350 cremations have taken place in the Milan crematory, among them that of a Catholic priest, Giovanni Sartorio, fifty-nine years of age, who was burned on the 16th of September, 1884. This gentleman had taken the sacraments of the holy Roman church before death, but in his will he had secured his incremation by the insertion of a clause disinheriting his relatives in case they should place any obstacles in the way of his reduction to

ashes. While his friends made preparation for his cineration, his relatives, not knowing of the clause in the testament, ordered his interment in consecrated ground, and paid the burial fees in advance. The squabble that followed was amusing. The kinsmen of the deceased, not caring to lose their inheritance, caused the friends to return the burial fees; but they, in revenge, forbid the corpse to be brought into church. Thus it came about that the remains of a Roman Catholic priest were, for the first time in Milan, and perhaps even in entire Italy, disposed of without the usual rites in church.

Owing to the success of the Milan crematorium, crematories were built at Padua, Cremona, Varese, Lodi, Brescia and Rome. A cinerary furnace was also speedily erected in the hospital at Spezzia, by order of the Minister of the Navy; this apparatus was principally used for the cremation of cholera victims.

A cremation society was established at Rome in December, 1879, but it was not until recently that the society obtained leave from the so-called "liberal" municipality to build a crematorium. The structure is within the Campo Verano, the burial-ground near the church of San Lorenzo; it stands in the center of the cemetery. It was commenced in 1882, and opened in April, 1883, in presence of the sanitary council appointed by the Prefect. The building is somewhat of an Egyptian character, and surmounted by a pyramid which accommodates and conceals any chimney. A small room is intended for mourners, a larger one contains the Gorini furnace, which is remarkable for its cheapness and simple construction.

Among the notable cremations at Rome, were those of Karl Hillebrand and the reverend Savi. The former was committed to the flames October 27, 1884, in concordance with his own wish. The celebrated author had expired in Florence, and to render transportation possible, he was embalmed, and then placed in a lead coffin full of ice,

which in turn was put in a wooden box. He was conveyed to the crematory in a cart, that had been liberally decorated with crape. The corpse was accompanied by four men. The vehicle with its ghastly freight reached the crematory at 8 o'clock in the morning. The cover of the wooden casket was removed first, laying bare the lead coffin which was pried open with a crowbar. After ten minutes this was accomplished, the body of the distinguished writer taken from its icy couch, and deposited upon an iron grate. Although the body had been embalmed, decomposition had already set in. A general sigh of relief escaped the spectators when the shroud again covered the features which death had defaced, and when the iron bed, on which the deceased lay, was gently slid into the furnace. The door of the apparatus was closed, the flames began their work of destruction; after one hour the furnace was at a white heat, and nothing left of the body but pure, pearly-white ashes.

The other instance to which I alluded, created quite a sensation in the Eternal City. Previous to his death the reverend Savi had filled the elevated position of Royal Chaplain at the Italian court, and was supposed to be, like most Catholic priests, opposed to incineration; therefore when his will revealed the fact that he wanted his body to be cremated, it caused no little surprise. Many attempts were made by the clergy to prevent the cineration, but, in spite of all animosities encountered, the last request of the deceased clergyman was executed by his administrator, the Roman deputy, Maiocchi, on the 18th of December, 1884. So far fifteen bodies have been cremated at Rome.

The urns holding the ashes of the cremated can not be removed from an Italian columbarium except by permission of the Prefect of the province. The urns must be tightly closed, and must bear the name of the deceased, and the date of his or her death. The ashes of only one body may be placed in an urn, the reverse being strictly

forbidden. Every cremation is registered both by the board of trustees of the crematory and by the civil authorities.

Cremation rapidly gained a footing in Italy, principally through the unceasing efforts of the secular press, and the estimation in which its promoters were and are held, for most of them were and are either physicians or learned professors.

Cremation societies now exist at Ancona, Asti, Bologna, Brescia, Capri, Codogno, Como, Cremona, Domodossola, Florence, Genoa, Intra, Livorno, Codi, Milan, Modena, Novara, Padua, Parma, Pavia, Perugia, Piacenza, Pisa, Pistoga Siena, Turin, San Remo, Undine, Varese, Venice, and Verona.

The cremation society of Cremona was organized on May 9th, 1880. On the 21st of August, 1881, the municipal council, after hearing the report of counsellor Cini-selli, voted almost unanimously (twenty-two against three) in favor of the following resolution, presented by the counsellor Vacchelli:

“The Communal Council hereby authorizes the erection of a furnace for the cremation of human bodies, and that of a columbarium, in the neighborhood of the city cemetery, and grants twelve thousand francs for this purpose.”

The construction of the crematory temple was begun immediately, and progressed so rapidly that it was already inaugurated on the 10th of May, 1883, in the presence of the authorities and a great concourse of representatives of congenial societies. Up to June 30, 1884, ten persons were cremated at Cremona.

The cremation society at Domodossola was founded in 1880. A crematorium is now being constructed.

The society at Modena was organized in May, 1881.

The Bologna Cremation Society was founded on the 12th of May, 1881.

The incineration society of Pavia sprung into existence in July, 1881.

The Padua Cremation Society was founded on August 31, 1881. Certain difficulties retarded the erection of a crematorium, which, however, was finally built. The apparatus which it contains is of the Venini pattern, and was used for the first time on the 26th of June, 1884.

The cremation society of Codogno was organized on October 16, 1881.

The conferences which were held at the atheneum of Venice, first by Dr. Cesare Musatti, and afterwards by Dr. Pini, did much to awaken the idea of cremation in this city. By degrees the partisans of the reform united themselves and organized a cremation society on the 6th of January, 1882.

The cremation society of Piacenza was organized on the ninth of April, 1883.

The cremation society of Livorno was established on March 27, 1882, under the presidency of Mr. Frederic Wasmuth. It numbers more than two hundred members, and will soon erect a crematorium.

The Novara Incineration Society was founded in April, 1882, and that at Ancona in May of the same year. In May, 1882, a cremation society was also organized at Genoa.

The cremation society of Florence was organized in June, 1882, under the presidency of Prof. P. Pelizzari.

In 1882, Signor Bernardino Butturini, a distinguished citizen of Brescia, offered the municipality four thousand francs for a crematorium to be erected in the course of the same year in the city cemetery. The municipal council appointed a committee to look into the matter, and, when this reported in favor of the scheme, ordered the construction of a cinerary apparatus on the system Venini. This was inaugurated on the 8th of July, 1883, and is the first Venini furnace erected in Italy, which conforms to the important modifications made by its inventor. Up to June 30, 1884, five persons were cremated at Brescia.

At a meeting held on the 21st of June,

1882, the city council of Turin approved of the concession of sufficient ground in the neighborhood of the municipal graveyard, and a subvention of seven thousand francs for the erection of a crematory temple on the 29th of June, 1882, the Turin Cremation Society was organized under the presidency of Prof. Aris-dante Fabretti.

The cremation society at Intra sprung into existence on the 29th of March, 1884.

The Parma Cremation Society, presided over by Dr. Arnold Langhena, was formed on the 15th of June, 1882, with a membership of over sixty persons, both sexes being represented.

Toward the latter part of 1882 a cremation society was formed at Verona, the president of which is Dr. Zerlotto.

The cremation society of Pisa was organized on July 29, 1882.

The incineration society at Carpi was founded in 1882; that at Siena on the 11th of April, 1883, under the presidency of Prof. Silvio Cecchi.

The Asti Cremation Society came into being on the 28th of January, 1883.

The cremation society of San Remo was organized in 1881. On the 30th of October in that year the municipal council with an overwhelming majority, voted in favor of granting a subvention of two thousand francs to the society to encourage it in the erection of a crematorium at San Remo.

The Pistoga Cremation Society was founded on June 2, 1883.

The incineration society at Varese was formed on the 12th of September, 1880, with Chevalier Cesare Varatti as president. The Chevalier generously contributed 5,000 francs to the fund for the erection of a crematorium; the municipality appropriated quite a large sum for the same purpose, and the members of the society donated the rest, so that in a short time sufficient money was on hand to begin the construction of the building. The crematorium was finished in the same year, and although a small one, presents a handsome elevation. The

chamber in which incineration is performed is placed in the center, just behind the room approached to the public, and which is approached through a roomy vestibule. A room has been provided where the relatives can be accommodated. At the sides of the temple are two columbaria for the reception of urns.

The town of Lodi built its first crematorium in 1877, and it was erected in the Riolo Cemetery by permission of the municipality. Here Prof. Paolo Gosini first experimented with his liquids platonique, afterward abandoned, and here also erected the first crematory furnace, upon the pattern which still bears his name. There is nothing striking about the building. Up to June 30, 1884, twenty-five bodies had been cremated at Lodi.

Looking over the history of cremation in Italy, one needs must gain the firm conviction that *Dr. Gaetano Pini*, of Milan, is the most ardent cremationist in his native country. Whenever a cremation society was organized there, the indefatigable doctor was on hand, giving advice and delivering addresses, increasing the zeal of the advocates of the reform, and encouraging its timid friends. Really the amount of labor performed by this gentleman is truly marvelous. Already the doctor is reaping the fruits of his philanthropic work. Incineration is steadily advancing in Italy and is gaining popular favor rapidly, and Dr. Pini's name will be handed down to succeeding generations as that of a benefactor of his land and people.

There was unanimous applause in Italy at the news that General Ginfeppe Garibaldi, by an act of his last will, had ordered that his body should be reduced to ashes as soon as possible after death. The famous Italian leader had repeatedly declared before his friends, and the President and Secretary of the Milan Cremation Society, that he wanted his body to be cremated in order that he might escape the foul putrefaction of the grave. In a letter to Dr. Praudina, he

specified the manner in which he wished to be buried.

During life the "Hermit of Caprera" had often busied himself with the consideration of questions of public health; he had often remarked that the living should not be sacrificed to the dead. He hoped, no doubt, in providing for his cineration, that it would exercise the greatest moral influence upon his countrymen. He meant to strengthen in the minds of his people a great philosophical principle, violently opposed as it may be by the enemies of all civil progress, namely, that fire is the surest purifier of the remains of those we mourn.

The will of the General, which was opened in 1882 at Codogno, contained the following directions regarding the disposal of his remains: He wanted to be cremated on a pyre of aromatic wood; his ashes were to be collected and deposited in a granite urn, which was to be placed in the grave of his daughters, Rose and Anita. He wanted to be clad in his red shirt and his face left uncovered.

Unfortunately the manifestations of general approbation were quickly followed by a feeling of astonishment and deep regret on hearing that the family of the deceased refused to carry out the solemn testamentary disposition of his own remains. That the remains of him who really created the Italy of to-day have not been disposed of according to his last will, is a blot upon the otherwise spotless escutcheon of the sunny land.

In Spain, where the body of Merino, the man who attempted the assassination of Queen Isabella, was burned in 1852, Cremation has made as yet but little progress, but even in this stronghold of Catholicism it can point to friends.

El Anfiteatro Anatomico Espanial of March 15, 1874, contains an admirable article on incineration by Don Federico Gilman. Two pamphlets on the subject also appeared in Spain, one by the Rico Salcedo, at Valencia, in 1876, the other one by L. Gallardo, at Madrid, in 1878.

The Board of Public Health at Madrid resolved in 1884 to request the government to make cremation obligatory during epidemics, and to permit incineration in all cases where the family of the deceased wish to dispose of him so.

Dr. Cervera, member of the municipal chamber of Madrid, proposed the erection of a crematory temple in the new cemetery of that city.

In Lisbon, Portugal, cremation is not only optional, but the authorities of the city have even issued a decree making cremation compulsory in time of epidemics.

On the 6th and 10th of March, 1874, public meetings for the discussion of the incineration question were held at Zurich, Switzerland, attended by two thousand persons, and it was then that the Zurich Cremation Society sprung into existence. On these occasions eloquent orations in favor of the burning of the dead were delivered by Dr. Ercolani, who crushed the sentimental objections raised by Professors Blermer and Cloetia, by Dr. Gall, who upheld cremation as a sanitary scheme, by the Rev. Pastor Lang, who spoke of it from a religious standpoint, and by Professors Kinkel and Weith, who made strong arguments in its behalf. Such distinguished gentlemen as Prof. Dr. Kopp, Prof. Dr. O. Wysz, Prof. Dr. H. Huber, Prof. Dr. Victor Meyer, and Prof. A. Heim, also gave in their adherence to the reform.

By frequent lectures on cineration it was contrived to keep the matter before the public. On the 26th of July, 1877, the Zuerich council of the government passed an act allowing optional cremation; and on the 20th of December, 1878, the municipal council of Zuerich granted leave to erect a crematorium on a ceded piece of ground in the new cemetery of the town. I am sorry to say that the crematory has as yet not been built, owing to a lack of funds. This deplorable condition is due to a great extent to the ridiculously small membership-fee and annual dues of but two francs; yet

in spite of all this, success is sure to come in the end, for even this lagging fund grows yearly. The society at Zuerich now numbers nearly four hundred members, and is (the fund dilemma excepted) in a prosperous condition. Wegmann-Ercolani is its recognized leader, and must be looked upon as the foremost champion of incineration in Switzerland. In the summer of 1879, a lecture on cremation was delivered before the students of the university of Basel. Propaganda was also made for the system at Aarau, Bern, St. Gallen, Lugano, and Geneva.

At Geneva cremation has been adopted theoretically, and the government has countenanced the movement. A society is about to be formed. Drs. P. L. Dunant and Gustave Maynier are endeavoring to bring about the erection of a crematorium, and it seems that the necessary money to realize the idea will soon be raised. It is proposed to build the apparatus on the cemetery at Plainpalaio. Neither a Siemens nor an Italian furnace will be used, but one designed by a citizen of Geneva.

In estimating the progression of cineration in Switzerland, it would be wrong to overlook the merits of the native secular press, which did much by its untiring exertions in favor of cremation to spread the reform.

At the Vienna International Exhibition in 1873, Dr. Ludovico Brunetti, Professor of Pathological Anatomy in the University of Padua, gave a great momentum to the study of incineration in Austria by exhibiting the residue from bodies and parts of bodies on which he had performed cremation by different methods. The interest aroused by this exhibition led to the formation of a cremation society at Vienna in 1874, which was organized by Dr. E. Hacker. The last publication of this society was issued in 1881. The association is still extant and is actively engaged in promoting the cause that brought about its establishment. There is another cremation society at Gratz, Styria, which was constituted by Dr. De Miskey in October, 1884.

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The cremation movement at Vienna was followed by one at Brium, Laibach, Prague, and Presburgh, all of which led to the formation of societies.

On the 6th of February, 1874 the Commercial Council of Vienna adopted unanimously the following proposal:

“Referring to the buildings, which it will be necessary to raise in the new Central cemetery, the superior administration will take immediate steps to introduce cremation with as little delay as possible.”

In November, 1881, the municipal council of Buda, Pest, resolved to make cremation obligatory in cases of death from contagious maladies.

The question of instituting the reform was brought before the city council of Vienna in 1883, and parliament in 1884.

Altogether the outlook for cineration in Austria is not favorable, but one need not be surprised at that, for Austria is known to be one of the most conservative countries in the world.

In 1658, when several collections of cinerary urns were discovered in Old Walsingham, Norfolk, England, Sir Thomas Browne, a learned physician, came forward with a brilliant dissertation on cremation, which still holds its rank among standard English literature. This essay, conspicuous for the erudition displayed, was a singularly powerful and idiomatic plea for incineration. The next to take up the righteous cause of cremation in Great Britain, was no less a person than Sir James Y. Simpson, the eminent surgeon of Edinburgh, Scotland, who is now, I regret to say, no longer among the living. He demonstrated how easy it would be for his fellow-townsmen to maintain a fire constantly on the Hill of the Hunters Bog, near Edinburgh. But he, too, only had in view the ancient pyre, therefore it is not astonishing that his efforts were not crowned with success.

It appears that about the year 1844, the sanction of the authorities of the city of London was obtained for the cremation,

within the City of London Gas Works, of the dead of Bridewell Hospital; an arrangement was also concluded with the city authorities for the incineration of bodies of dead prisoners, and of the condemned meat and offal of the markets. The project, however, met with so much opposition from certain churchmen that it fell into abeyance.

In modern times the gong of cineration was first struck by Sir Henry Thompson, who had become enamored with incineration at the Vienna Exposition, and who earnestly treated of cremation in a brilliant paper, "The Treatment of the Body After Death," in *The Contemporary Review* for January, 1874. This article, as might be expected, elicited great popular interest, much approval from all classes of the public, and some vigorous opposition. It was replied to, in the February issue of the same periodical, by Mr. Philip H. Holland, the Medical Inspector of Burials for England and Wales, whose statements and arguments, adroit though some of them were, were properly refuted in the succeeding number of the *Review*. Sir Henry fortified his arguments by citing some experiments with the bodies of lower animals, which he had burned, with little cost and no inconvenience, in a Siemens furnace.

For many years prior to 1874 Dr. Lord, health officer for Hampstead, continued to urge the practical necessity for the introduction of incineration.

The Cremation Society of England was founded on the 13th of January, 1874, and no sooner was it established than letters of encouragement poured in from all parts of Great Britain, and there was a great influx of new members and subscribers to its declaration. Every cremationist must feel proud to know that among those who, under Sir Henry Thompson's able presidency, founded the society were such men of distinction as the late Shirley Brooks and Anthony Trollope, the well-known novelist. The English Cremation Society was founded for the propagation of the tenets of incin-

eration, not for trading purposes, as may have been supposed by some incredulous, ill-disposed, or ignorant minds.

In 1878 the society purchased an acre of ground in a secluded part of St. John, Woking, in Surrey, especially adapted by position for the purpose, and erected thereon a building, with an apparatus of the most approved kind, for effecting cremation of the dead. After some deliberation, the system of Professor Gorini, of Lodi, in Italy, was adopted, since it was considered the best for the site, inasmuch as no supply of gas is required to insure combustion, but only coal or wood. It is to be regretted, that owing to a lack of funds, only the furnace could be built, which, standing alone in spacious fields, must present rather a dreary aspect, must, I take it, appear far too realistic. It is to be hoped that the society will, by means of large bequests or sufficient contributions from the public, be placed in a position to roof over the furnace, and to erect a chapel or a hall in front of it, so as to accommodate the friends and mourners. The apparatus was next tested by an experiment, which consisted of the burning of a portion of the carcass of a horse weighing one hundred and forty pounds, that was consumed in two hours, at a cost of a very small quantity of fuel. The ashes resulting from the combustion were perfectly white, and weighed a little under six pounds; not the slightest odor could be detected in the closest neighborhood of the furnace, or even with the doors of the crematory chamber open, and there was, moreover, no escape of smoke from the chimney. The success of the system was established, and the possibility of cremation without offence completely demonstrated.

Since that time the place has been maintained in perfect order, but has not been used, owing to a doubt raised soon after the date referred to as to the legality of adopting the process in England. A deputation of the cremation society waited upon the Home Secretary on the 20th of March,

1879, with a view of representing to the government their own wishes in respect of the crematory at Woking. The Home Secretary admitted that the proposed practice was unaffected by existing law, but he had been advised that inasmuch as the registration of deaths in her Majesty's country had always been associated with burial, he was constrained to conclude that cremation must first be approved by Parliament, and that if persisted in he saw no other course open than to legislate against it. He further advised the council to introduce a short bill into the House of Lords, and not to rely upon the opinions of Queen's counsel which had been obtained by them affirming that it might be practiced. Thus the so-called Cameron bill originated. It is strange that England, so far advanced in political freedom, should yet be so deficient in intellectual liberty. Among the English there are doubtless as many unbiased investigators as among any other nation, but both the representatives of the people and the government present the deplorable picture of solicitous embarrassment, and maintain an obstinate conservatism when any question involving religion or ecclesiastical rites comes up before them; any act, that is not seconded by the Church of England, is rejected through non-support, any abuse which the Established Church desires to retain, can not be removed. That this holds true is evinced by the repeated failure of the bill permitting a widower to marry his sister-in-law, notwithstanding that even the Royal family desire to contract such a marriage. Finally the bill was accepted by the House of Commons, but has been since stubbornly rejected by the House of Lords.

Dr. Cameron's cremation bill—providing legal sanction for the adoption of cremation in Great Britain—was submitted to the House of Commons sometime in 1884, I do not remember the exact date. This bill, which asked but for permissive incineration, a privilege that is readily granted in all civilized countries of the globe, was rejected

on the second reading by a vote of 149 to 79. It is a solace to know that the minority included the scientific men, men of such world-wide fame as Sir Lyon Playfair, Sir John Lubbock, and many others. Mr. Gladstone, zealous in his endeavors to serve the Church, brought the influence or the Government to bear against the bill, pleading in excuse that it was contrary to public opinion. Every well-balanced mind must conceive instantly that the Premier might have reserved the expression of the public will and opinion for Parliament, but that he wished to oblige the Church of England. That Englishmen regard cremation from the same standpoint as other people is proven by the 79 favorable votes that were cast.

Mr. W. Eassie delivered excellent addresses on cremation before the first congress of the Sanitary Institute of Great Britain, held in 1877, at Leamington, and before the congress at Manchester, in 1879, when he exhibited the model of the Polli-Clericetti apparatus. In March, 1879, the question of cremation was also presented to the House of Lords, but without practical results.

In August, 1880, Sir T. Spencer Wells, late president of the Royal College of Surgeons of England, and Surgeon to the Queen's Household, read a masterly paper on incineration, entitled "Cremation or Burial," at the meeting of the British Medical Association, at Cambridge. At its conclusion a memorial was drawn up, addressed to the Home Secretary, and praying that permission be granted for the practice of cremation. The address was as follows:

"We, the undersigned members of the British Medical Association, assembled at Cambridge, disapprove the present custom of burying the dead, and desire to substitute some mode which shall rapidly resolve the body into its component elements by a process which can not offend the living, and may render the remains absolutely innocuous. Until some better mode is devised we desire to promote that usually known as cremation. As the process can now be carried out with-

out any thing approaching to nuisance, and as it is not illegal, we trust the government will not oppose the practice, when convinced that proper regulations are observed and ampler guarantees of death having occurred from natural causes are obtained than are now required for burial."

This memorial was signed by Sir T. Spencer Wells and many other prominent physicians and surgeons, altogether by over one hundred members of the association.

On January the 13th, 1884, an incident occurred that speedily wrought a metamorphosis of the whole question regarding the legality of cineration in the United Kingdoms. There is an eccentric physician of South Wales, who is known as Dr. Price. He claims to be the nineteenth century representative of the ancient Druids. His costume is green trousers, white smock coat, and fox-skin head covering. He is an educated physician and a member of the British Medical Association. The Druids of old burned their dead, and the child of Dr. Price having died he determined to dispose of her remains by cremation. He retired at nightfall to a hill top, where, placing the corpse in a cask of petroleum, he applied the torch. The burning aroused the populace, who, on nearing the spot, discovered its purpose. Amid much excitement the charred remains were rescued, and the Druid doctor placed under arrest. He was tried at the Glamorganshire Assizes, Cardiff, and acquitted. Sir James Stephen, the learned Judge, when charging the grand jury at the trial, stated that Lord Justice Fry agreed in the views about to be expressed by him. He reviewed elaborately all the authorities bearing on the case, and, after discussing the methods of disposing of the dead in ancient Europe, failed to discover any law, ancient or modern, which forbids cremation, providing it be done in such a manner as to cause no nuisance.

This decision, of course, rendered the society free to act as it pleased. Advertisements were immediately put in the news-

papers, to say that anybody could be cremated who would adhere to the rules formulated by the society. Under these circumstances the cremation society felt it a duty to indicate, without delay, those safeguards which they deemed it essential to associate with the proceeding in order to prevent the destruction of a body which might have met death by unfair means. They were aware that the chief practical objection which can be urged against the employment of cremation consists in the opportunity which it offers, apart from such precautions, for removing the traces of poison or other injury which are retained by an undestroyed body, and therefore framed the sequent rules, which still hold good:

"1. An application in writing must be made by the friends or executors of the deceased—unless it has been made by the deceased person himself during life—stating that it was the wish of the deceased to be cremated after death. 2. A certificate must be sent in by one qualified medical man at least, who attended the deceased until the time of death, unhesitatingly stating that the cause of death was natural, and what the cause was. 3. If no medical man attended during the illness, autopsy must be made by a medical officer appointed by the society, or no cremation can take place. These conditions being complied with, the council of the society reserve the right in all cases of refusing permission for the performance of the cremation, and, in the event of permitting it, will offer every facility for its accomplishment in the best manner."

The Cremation Society of England owes much to its indefatigable honorary secretary, Mr. Wm. Eassie, C. E., whose propaganda for incineration is not confined to the British Isles, but extends all over the world. I am sure that his name will always head the list of those who have promoted cremation in the country of Shakespeare, and in this respect even place him over and above that illustrious surgeon and physicist,

Sir Henry Thompson. I would not, I am certain, experience the least astonishment should I hear that Mr. Eassie sent some of his valuable essays on cineration to some savage in Africa, for instance the King of Dahomey, and that the royal negro, pleased with the idea, instantly had several hundred of his subjects cremated before him, which being a complete success in every respect led his dusky majesty to swear by all the holy idols with which he is familiar that he too should be reduced to ashes after death.

Public sentiment reflected in the press of the United Kingdoms has been almost unanimously in favor of cremation. Journals of all classes, religious, fashionable, popular, whig, radical, or tory, from the *Court Circular* to the *Rock*, from the *Times* to *Lloyd's Weekly Newspaper*, have by a vast majority pronounced in its favor.

The Metropolitan Commissioners of Sewers have appointed a committee with the view of considering the propriety of erecting a crematorium at Ilford.

The oldest case of cremation on record in Great Britain was that of a widow, Mrs. Pratt, of George Street, Hanover Square, London. The lady was burned, in obedience to directions given in her testament, in the new graveyard adjoining Tyburn turnpike, on the 26th of September, 1769.

The cremation I am about to narrate really belongs to Italy, but since its subject was an Englishman of whom his country, nay the whole world, may be justly proud, I have reserved it for this part of my discourse. The incineration I refer to was that of the poet Shelley and his friend Williams. The life of Percy Bysshe Shelley may be likened to a tragedy, unfortunately of short duration, but yet eventful. Trelawny, Shelley's biographer, says:

"Shelley's life was a proof that the times in which he lived were awful for those who dared to maintain liberal opinions. They caused his expulsion from Oxford; and for them his parents discarded him, every member of his family disowned him, and the

savage Chancellor Eldon deprived him of his children."

Him whose heart was brimful of love for humanity in general, they charged with atheism and immorality, and caused him to emigrate to Italy, where he established a new home and wrote "The Cenci" and "Prometheus," the best of his works; but where he also, not quite thirty-six years of age, had to take leave from earthly existence. From early youth he had looked upon life as a constant combat; in fatal conflict with the elements he expired.

Early the poet had contracted a taste for seamanship, which led him, in 1822, to order a boat built for himself and the true friend who died with him at Genoa. This circumstance brought about his death indirectly, as *E. J. Trelawny* (recollections of the last days of Shelley and Byron. Boston: Ticknor and Fields, 1859, p 119-142) tells us.

At noon on the 20th of June, 1822, Shelley, Williams, and a sailor boy, named Charles Vivian, departed from Villa Magni, near Lerici, on board the sailboat that had been constructed for the poet, bound for Leghorn. In the evening of this day, they cast anchor at their destination, and went ashore to purchase some household goods and books. On Monday, the 8th day of July, Shelley and Williams went on board of their boat to return to their home in the Gulf of Spezzia. Trelawny in the "Bolívar," Lord Byron's schooner, wanted to accompany them in the offing, but was detained by the guard-boat, since he had not his port clearance. Therefore he reluctantly reanchored, furled his sails, and with a ship's glass watched the progress of his friend's boat. There was a sea-fog, in which Shelley's boat was soon after enveloped, and nothing more of her could be seen.

Although the sun was obscured by mists, it was oppressively sultry. There was not a breath of air in the harbor. The heaviness of the atmosphere and the unwonted stillness benumbed Trelawny's senses, and

caused him to retire into the cabin to sleep. But he was roused up by a noise overhead and went on deck. There he saw that a great storm was brewing, which soon broke in upon them with all its fury. When the battle of the elements was over, Trelawny looked to seaward anxiously in the hope of descrying Shelley's boat among the many small craft scattered about, but in vain—the poet's boat was not among them. He sent his Genoese mate on board some of the returning craft, but they all professed not to have seen the English boat. On the third day Byron was informed of his brother Bard's fate. When the news was broken to him, his lip quivered and his voice faltered as he questioned Trelawny, who was the bearer of the sad tidings. A courier was sent to Leghorn to despatch the "Bolivar" to cruise along the coast, while Trelawny mounted his horse and rode in the same direction. Another courier was despatched along the coast to go as far as Nice. When Trelawny arrived at Via Reggio, he heard that a punt, a water-keg, and some bottles had been found on the beach, which articles he recognized as having been in Shelley's boat when he left Leghorn. Nothing more was found for seven or eight days, during which time of painful suspense Trelawny patrolled the coast with the coast-guard, stimulating them to keep a good lookout by the promise of a reward. At length the worst fears were confirmed—two bodies were found on the shore, one near Via Reggio, which Trelawny went and examined. Several articles, among them Keats' Poems and a volume of Sophocles, rendered it certain beyond the shadow of a doubt that the mutilated remains were Shelley's. The other corpse was identified as that of Williams. Both bodies were much decomposed. Three weeks after the accident the sailorboy was washed ashore.

Trelawny (*Ibid.* p 126) states: "It was ultimately determined by those most interested, that Shelley's remains should be removed from where they lay, and conveyed

to Rome to be interred near the bodies of his child and of his friend Keats, with a suitable monument, and that Williams's remains should be taken to England. To do this in their then far advanced state of decomposition, and to obviate the obstacles offered by the quarantine laws, the ancient custom of burning and reducing the body to ashes was suggested. I wrote to our Minister at Florence, Dawkins, on the subject, and solicited his friendly intercession with the Lucchese and Florentine Governments, that I might be furnished with authority to accomplish our purpose."

Such was the influence and energy of the British Minister at Florence, that he ultimately overcame all the obstacles and repugnance of the Italians to sanction such an unprecedented proceeding in their territories.

Conscious from the first of the difficulty of burning a corpse, Mr. Trelawny provided himself with a furnace, and a large quantity of excessively dry and resinous fuel. The cremation was effected by Lord Byron, Trelawny, and Leigh Hunt. The exhumation (the bodies had been temporarily interred) which preceded the incineration was, of necessity, revolting, as every exhumation is and ever will be. Williams was burned first. When the funeral pile had burnt low and they uncovered the furnace nothing remained in it but dark-colored ashes and fragments of the larger bones. Poles were then put under the red-hot furnace, and it was gradually cooled in the sea. Trelawny gathered together the human ashes and placed them in a small oak box, bearing an inscription on a brass plate, screwed it down, and placed it in Byron's carriage. Byron with Hunt returned to Pisa; Trelawny remained at Via Reggio. On the following day Shelley was dug up and cinerated. Hunt, Byron, and Trelawny, as before, were present. After the cremation the iron machine was again cooled in the sea, whereupon Trelawny collected the human ashes and placed them in a box

which he took on board the "Bolivar." while Byron and Hunt retraced their steps to their home.

Regarding the last disposal of the ashes of the immortal poet, Mr. Trelawny (*Ibid.* p. 139-142) says:

"When I arrived at Leghorn, as I could not immediately go on to Rome, I consigned Shelley's ashes to our Consul at Rome, Mr. Freeborn, requesting him to keep them in his custody until my arrival. When I reached Rome, Freeborn told me that, to quiet the authorities there, he had been obliged to inter the ashes with the usual ceremonies in the Protestant burying place. When I came to examine the ground with the man who had the custody of it, I found Shelley's grave amid a cluster of others. The old Roman wall partly inclosed the place, and there was a niche in the wall formed by two buttresses—immediately under an ancient pyramid, said to be the Tomb of Caius Cestius. There were no graves near it at that time. This suited my taste, so I purchased the recess and sufficient space for planting a row of the Italian upright cypresses. As the souls of heretics are foredoomed by the Roman priests, they do not affect to trouble themselves about their bodies. There was no "faculty" to apply for, nor Bishop's license to exhume the body. The custode or guardian who dwelt within the enclosure and had the key of the gate, seemed to have uncontrolled power within his domain, and Scudi, impressed with the image of St. Peter with the two keys, ruled him, without more ado, and masons were hired, and two tombs built in the recess. In one of these, when completed, I deposited the box, with Shelley's ashes, and covered it in with solid stone, inscribed with a Latin epitaph, written by Leigh Hunt.

"The other tomb, built merely to fill up the recess, was likewise covered in the same way, but blank without as within. I planted eight seedling cypresses. When I last saw them, in 1844, the seven which remained were about thirty-five feet in

height. I added flowers as well. The ground I had purchased I inclosed, and so ended my task."

Although these cremations, carried out in an exceedingly primitive furnace, must have shocked Trelawny's feelings, he was too level-headed a man to attribute the fault to the system of incineration, when the shock was occasioned by the state of decomposition the bodies were in, and the defective apparatus used. After living to an advanced age, Mr. Trelawny died at Sompting, England, and was cremated at Gotha, in obedience to his last request, on the 27th of August, 1881.

On the 8th and 9th of October, 1882, the wife of Captain Hanham, and his mother, Lady Hanham, wife of the late Sir James Hanham, Bart., of Dean's Court, Dorset, were cremated in a cheap temporary crematory, devised by Mr. Richards, of Wincanton. The furnace had been built under the supervision of Captain Hanham himself. The coffins were placed on iron plates, and fire bricks above the furnace, a chimney twenty-two feet high furnishing the draught. The process lasted two hours, and was successful in every respect.

A year later, on the 7th of December, 1883, the Captain, Thomas C. Hanham, was reduced to ashes in the same apparatus, at his residence in Manstone, Dorsetshire. The incineration was public and in conformity with the last testamentary dispositions of the deceased. The cremation was accomplished in nine hours and forty minutes. The ashes were deposited in the family mausoleum.

The Danish Cremation Society at Copenhagen was founded in 1881, and is in a flourishing condition. It has several branch societies in the provinces. Soon after its organization it numbered fifteen hundred members; it now counts eighteen hundred members, among them one hundred and twenty physicians. Several attempts were made, in Denmark, to legalize incineration, but in vain: as there is, however, no law

prohibiting the act, the society is determined to imitate the example of England, to execute cineration at their own risk, and await further legislation.

Mr. Per Lindell, a civil engineer, did much to popularize cremation in Sweden. For many years he treated of the subject in the columns of the *Norden*, a journal edited by him. It was through his influence that the Swedish Cremation Society was established on the 31st of May, 1882, at Stockholm, under the presidency of Colonel E. Klingenstierna. At present the society numbers from seven to eight hundred members. There is no law forbidding incineration; the prospects are therefore very good. As soon as sufficient money is on hand a crematory will be erected and put in use. A society, affiliated with the central one, was recently organized at Gothenburg.

In the neighborhood of the new cemetery, St. Francisco Xavier, at Rio de Janeiro, Brazil, a large space of ground has been assigned for the erection of a crematory temple. Incineration will be practiced there in order to lessen, if possible, the alarming rate of mortality in that unhealthy place. Dr. A. Vinelli deserves great credit for his admirable articles in support of cremation in the *Revista Medica, de Rio de Janeiro* of 1878.

In the Argentine Republic, Mexico, and Uruguay a steady movement is on foot in favor of the reform. The authorities in Mexico have already granted permission for the construction of a crematorium on the Gorsini pattern.

It is said that the government of Venezuela has also decided to erect a crematory, wherein to reduce to innocuous ashes the bodies of persons deceased of yellow fever.

The idea to propagate cremation at Valparaiso, Chili, originated with the Lessing Lodge of Free Masons, which, on the 6th of August, 1881, directed a circular to the other Masonic lodges of the city, requesting them to send representatives to a preliminary meeting. This meeting came off on

the 3d of December of the same year. Cremation was freely discussed from every standpoint, but on the whole the meeting was not followed by any practical result.

On the last of December, 1881, a proclamation to organize a cremation society was published in the journal *El Mercurio* by the committee having the matter in charge. On the 20th of May, 1882, the Cremation Society of Chili was formed under the presidency of Senor O. Malvini. This society is in a flourishing condition and now numbers over two hundred members.

Towards the end of 1883 a committee to organize a cremation society at Alexandria, Egypt, was formed by M. Lumel, who, unfortunately, died in the same year. The committee, however, is still in existence, and is at present occupied in realizing the ideas of M. Lumel. At Cairo Messrs. Fitus Figari and Cesare Praga labor to found a cremation society.

NASAL POLYPI.

The treatment of nasal polypi by injection may sometimes be slow in its results, but it is generally the most satisfactory way to remove these troublesome tumors. The great questions to be settled in each individual case are: (a) What fluid shall be selected for the injection? (b) How much shall we inject, and how soon shall it be repeated? (c) What shall be done to correct the cause of the polypus and thus prevent its recurrence, or the growth of other polypi? The choice of fluids for injection may be narrowed to small limits, Pure carbolic acid with just enough water or glycerine to reduce it to the liquid state may be relied upon in most cases; making repeated injections of two or three minims into different parts of large growths every day, or less frequently, according to the extent of the action of previous injections. Where multiple growths exist, and the nasal fossæ are narrow and deep, a mixture of equal parts of carbolic acid and Fowler's solution may be injected.

BOOKS AND PERIODICALS.

HAWTHORN

LEAVES.

BY

ALICE HAWTHORNE,

LOUISVILLE. 1886.

Price, 50 cents.

This beautiful little book is composed of thirty-two olive-green leaves (glazed cardboard), each containing on one side a spirited little poem, en-

closed in red lines. The whole thirty-two leaves are enclosed by two cover leaves, the first of which has, in natural colors, a twig of rose with bright bud, full blown flower, and a few leaves. The title of the collection is printed diagonally across the face of the cover in gilt letters, and the whole is securely bound with colored silk cord. The book is enclosed in a neat white pasteboard box, with a green label containing the picture of two hawthorn leaves, across which is printed the word *Hawthorn*.

Really the esthetic style in which the work is issued does not suggest the solid worth of the contents. There are in these few leaves many noble sentiments charmingly expressed. The poetical description of the death of that king of racers "the brave McWhirter," is full of tender appreciation of the hero-horse:

"So, close beside the great race track
Is the brave McWhirter's grave,
And a marble horse should mark it,
And a banner o'er it wave."

The *Hawthorn Flower*, on leaf twenty, is tenderly woven into a delicate sentiment that closes with a comparison of one flower on the hawthorn bush to a boy, "To become 'mongst his blossoms the fountain and head." Leaf twenty-one, after the heart that "Seems born to grief, with naught but death to give relief," describes the solemn service of an annual decoration of the graves of the Confederate dead in pathetic strains, such as deeply to impress the reader with the author's genius of poetic description. She fills the classical definition of Horace: *Poeta nascitur non fit*. Hawthorn Leaves seems to be intended as a gift book for Christmas or birthday occasions.

COURIER-REVIEW

CALL BOOK.

A physician's pocket reference book and visiting list, arranged and prepared by

E. M. NELSON, M. D.,
PH. D.,

*Editor of the St. Louis
Courier of Medicine;
Physician to St. Louis
Protest. Hospital, etc.*

J. H. Chambers & Co.,
publishers and dealers in
medical books, St. Louis,
Chicago, and Atlanta. 1886.

This handsomely bound pocket reference and memorandum book has a calendar, tables of weights and measures, with rules for reducing the English to the metrical system, tables of comparative thermometry, formulæ, and doses for hypodermic injection, instruction

for artificial respiration, rules for the care of Galvanic batteries, a list of disinfectants, an article on urinalysis, the treatment of poisoning, Roberts' diagnostic table of eruptive fevers, and a posological table before the blank leaves for recording visits are reached. At the head of each page instead of "weekly call list," as was intended, the word *monthly* is printed. Of course this is a serious blemish, but may serve to cheapen the price of the book to those who care but little for inside appearances merely. The customary obstetrical, death, and vaccination records are provided for. The lines are clear, the paper good, the size a trifle large, and upon the whole the book is a fair model of its kind. Dr. Nelson, being a practical man, has, no doubt, met the wants of that ubiquitous class of specialists, the general practitioners, for a convenient pocket account book.

HEALTH LAWS

OF KENTUCKY.

Formulated by
Secretary

JOS. N. McCORMACK,
M. D.,

BOWLING GREEN, KY.,
1886.

This little pamphlet contains much valuable matter, and should be carefully studied by every citizen of Kentucky. To whom shall the people look for protection if exist-

ing laws are not enforced? If the medical profession arouses public sentiment sufficiently to encourage prosecuting attorneys and grand juries, the result will be felt throughout the entire State.

CORRESPONDENCE AND SOCIETIES.

SPANISH
MEDICINE.
BY
RUDOLPH MATAS, M.D.

[Letter from Barcelona,
Spain, to the N. O. Med-
ical and Surgical
Journal.]

It rarely happens that a medical tourist wanders from the banks of the Mississippi, and especially from New Orleans, to this part of the world, and particularly, if

the purpose of his travel be that of scientific enlightenment, or even the simple gratification of medical curiosity. The great itinerary of the medical men who leave America with the view of increasing the wealth of their professional ideas is usually London, Edinburgh, Dublin, Paris, Vienna or Berlin. In other words, Great Britain, France, Austria, Germany, and maybe Switzerland and Italy are the countries of the Eastern world where the American student believes he can find institutions worthy of his homage.

To the American physician, Spain offers few inducements. The distinguished men of the country are so seldom heard of across the ocean, whereas, the names of English, French, German, Austrian, Swiss, and even Italian leaders are almost as familiar as those of the great men at home; besides the original scientific work done in Spain is so rarely quoted and discussed, or is so silently done that its existence is justly doubted. Furthermore, Spanish names so seldom appear on the rolls of the great international assemblies of medical men, and their institutions of science appear so indifferent of representation abroad that it is not surprising that Americans are rarely tempted to cross the Pyrenees with the view of increasing their acquaintance with their Spanish *confrères*.

I must admit that, prejudiced in a great measure by similar opinions in regard to Spain as a land of scientific promise, I would not have undertaken this extended pilgrimage with the sole purpose of contributing my devotions to its Esculapian shrines. Other motives, however, compelled this visit, and afforded an opportunity for an in-

vestigation which, if limited and only sectional thus far, has been sufficient to improve my notions of Spanish medical resources, and to acquaint me with men whose ability and representative character have served to develop a sincere respect and higher appreciation for the institutions which they represent.

Thus far I have only traveled in Catalonia, and most of my time has been spent in this city, the great metropolis of the province, Barcelona. Barcelona itself, after Madrid, is the largest and most popular educational and medical center in the Spanish peninsula. This you can easily appreciate when you consider the commercial prestige of the city and its advantageous geographical position, which have tended to make it the wealthiest and most attractive metropolis, after the national capital, in Spain.

In the last twenty or thirty years Barcelona has increased enormously, not only as regards its topographical limits, but also in its population. For instance, according to the census of 1869, there were 193,493 inhabitants: in 1873, there were 353,583, and in 1883 the population was estimated at 450,000 or 460,000. From this item you can readily appreciate the rising importance of this city in Spain, and can safely consider its educational institutions as among the most representative in the country.

I would like very much to give you a complete account of Barcelona as a medical center; to present if only a brief sketch of all those institutions that have a medical interest, such as the numerous charities, infirmaries, and asylums, of which there are many, but as your space is limited and your time precious, I will only busy myself with what is more important, and even this very cursorily.

THE MEDICAL COLLEGE OF BARCELONA.	This is at present the medical department of the celebrated University of Barcelona, which traces its origin as far back as
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the thirteenth century, and in the *alma mater* of the most distinguished Catalonian statesmen and literati. It was in this university that Don Antonio de Gimbernat, of anatomical fame, taught anatomy and prosecuted his original researches on hernia. The medical department is a separate building, quite a distance from the university proper, and is attached to the Hospital de Santa Cruz, the largest charity of this city, where the students are advantageously situated for purposes of clinical instruction. The medical college was founded by Dr. Pablo Virgili, surgeon to Charles III of Spain, who, in recognition of important surgical services to himself, granted his attendant the privilege of founding a medical school in Barcelona. The building was erected in 1760, and was known as the "Colegio de Cirugia," until 1795, when the name was changed to the "Colegio de Cirugia Médica." In 1797 it changed its name to that of "Colegio de la Facultades Unidas," which it retained until 1827, when it adopted its present title: "Colegio de Medicina y Cirugia." The school as it exists at present is insufficient to satisfy the needs of the large and increasing classes that yearly gather in Barcelona to attend the course of lectures, and, in consequence, a new college building and hospital have become an urgent necessity. A plan of the new building has already been made and accepted by the faculty, and after the location is definitely settled the building will be constructed.

We trust the new college will be worthy of the university, which is a new and admirably constructed building—a real marvel of architectural beauty and academic style.

The medical college, as it exists at present, is much smaller than the medical department of Tulane University, and judging by its size alone, it is difficult to conceive how it can even admit the 610 alumni who attended the lectures during the last session 1884-5. Though the college is closed at present, and almost all the professors were out of the city, on account of the vacation,

I was permitted to examine the whole building very thoroughly, and noticed this want of space in each department. When we consider, however, that the course here is graded throughout, and that the classes are all broken up into small sections by the many branches of the curriculum, we can readily understand how easy it would be to accommodate a large class of Spanish students, where it would be impossible to accommodate one half or one third the same number of Americans, who attend the lectures simultaneously or *en masse*, without breaking up into classes of first, second, third, fourth, fifth, and sixth coursemen, as is done here. But to return to the college building. The largest hall in the building is the anatomical amphitheater, where the didactic lectures on anatomy and surgery are delivered. The amphitheater is circular, and measures about eleven meters across the floor, or arena. The benches are arranged in five grades, and can accommodate over 200 students. The hall is surmounted by a glass dome, which admits plenty of light and air. In a crypt in the wall, there is an excellent marble bust of the founder, Dr. Virgili. Opposite this hall is the dissecting room, which I must say is decidedly inadequate for its purpose. I counted in all about thirteen tables for subjects, and supposing that the room could accommodate twenty, which I fear would be impossible, we can easily conceive of the difficulties of giving a solid *practical anatomical* education to a class of 600 men with such scant material. The light and ventilation are also bad.

Anatomical material is scarce here, notwithstanding the large hospital close by, because there is no *official* obligation on the part of the hospital authorities to supply subjects to the college. The museum, which is a dependency of the anatomical department, has been removed to the university building, but it is very poor as a whole, and can not compare with the museum in Tulane University.

In the second floor there are lecture rooms

for the professors of therapeutics and materia medica, physiology, obstetrics, medical jurisprudence, and toxicology, all of them constructed on very much the same plan as those of our college, only about one third smaller. The cabinet of materia medica contains over 2,000 specimens and a good collection of pharmaceutical utensils. The toxicological cabinet is well supplied with reagents and the apparatus needed for the detection of poisons. The physiological cabinet, which adjoins the preceding two, is divided into two sections, one for vivisections and the other for microscopic studies. It contains quite a collection of microscopes, but they are mostly obsolete or antique instruments. The histological department is of new construction, but as the specimens and instruments had been put away during the vacation, I was not able to examine any of the preparations. In the physiological apartment there is quite an assortment of vivisectional appurtenances, among which I noticed Claude Bernard's large table for experiments, and several registering cylinders. There are aquaria for frogs, and crates for dogs, rabbits, and guinea pigs. The surgical cabinet is also supplied with a collection of instruments, but they reminded me very much of the antique surgical arsenal in our museum. This is more of historical interest than of a practical value.

There is a studio connected with the college that will be worth imitating some day in our schools. It is a sculptor's cabinet. In this room impressions and casts are taken of remarkable pathological specimens such as tumors, and casts of patients before, and after, important operations. In this way permanent and artistic records of the work done in the school and hospital are kept, greatly to the advantage of the museum.

There is a special medical artist who is in charge of this department, and is a salaried member of the faculty.

Chemistry and physics are not studied in the medical college, but in the university proper these branches receive special atten-

tion, as they belong to the academical course and are required as preliminary studies. Thus we find that the medical student when once admitted into the medical department is not obliged to waste his time on the very A B C of the physical science, but he is taught to develop and perfect the elements received in the academical department so that he may apply them to the exigencies of his practice.

The library of the college contains over 4,000 volumes for the use of students and practitioners. It contains many ancient tomes on Spanish medicine and the older classic authors, many of them bearing a date older than the sixteenth century. Some of these were expurgated by the Holy Office—the Inquisition—which condemned as sacriligious many of the books which dealt with the generative functions.

The examining hall, or “green room,” as our students would call it, is a sombre apartment well calculated to test the moral courage of the aspirants. The examinations are open to the public, and the student is exposed to the gaze of his fellow-students and friends, who sit in long rows of antique chairs. The tribunal or committee of examiners sit on the platform overhung by damask curtains that give the whole apartment a judicial character. The effect, I presume, is very much increased by the solemn dress of the professors, who still cling to the long academical gowns and mantles. The whole affair would doubtless cause an American unaccustomed to such ceremony to feel very much as if he were about to be tried by a Council of Grand Inquisitors preparatory to the delights of an *auto de fe*.

In a country where mediævalism left so deep an impress as in Spain, it is not surprising that all official acts and ceremonies are attended, even to-day, with a certain solemnity and spectacular gravity that must appear strange and even queer to one accustomed to our republican simplicity. There is no doubt, however, that in Spain and in the rest of Europe these peculiarities

are gradually disappearing, and that the peculiar academic costumes, etc., are being relegated to the records of history. I understand that some of the professors are beginning to cast them off as useless anachronisms.

The college session lasts eight months, beginning in October and ending in June. The course of study required to obtain the degree of "Licentiate in Medicine" covers a term of six (6) years, including one year of *ampilcation* or preparatory study. But it must be remembered that the medical student in Spain must present, before he is allowed to matriculate as a medical student, a diploma certifying that he has been graduated a Bachelor of Arts in the University of Barcelona, or in some other creditable university of Spain. So that the college life of a medical student must, if we sum up the years required to obtain both the academic and professional degrees, amount to twelve years! Luckily for the medical student, who is as impecunious as elsewhere, his medical education is, comparatively speaking, cheap, though still dear from the Spanish stand-point.

I have been officially informed that there are twenty-four (24) branches of study embraced in the medical course, which signifies as many classes of lectures or professor's "tickets." Of these twenty-four tickets, four are included which belong to the preparatory course embraced in the study of chemistry, physics, and natural history. The student takes a certain number of tickets every year and at the end of each session he is examined in the particular branches which they cover. If, during the six years which follow his matriculation he has proved himself a diligent student, and has successfully passed the annual examinations, he is supposed to have gone through all the branches or "*asignaturas*," and is allowed to appear as candidate for the "*licenciatura*," or degree. It appears that the student in Spain, as elsewhere, is very often a jolly good fellow, who loves a "nice time,"

etc., in which case he is very likely to be dropped for a year or two, and sometimes more, so that it is not at all rare to see students who have sat on the benches seven, eight, and even ten long years before they have been granted the degree. Each *asignatura*, or ticket, costs about six dollars, so that the twenty-four tickets would cost at the end of the course \$144. The diploma costs \$10, and the government license in addition costs \$154, so that the cost of medical tuition alone would sum up to \$308. If we add to this the expense of anatomical material, books, and instruments, we could estimate the total cost of a medical education at four or four hundred and fifty dollars.

This estimate, of course, alone covers the cost of the *licenciatura*, which allows the graduate to practice. The degree of *Doctor* of Medicine requires a separate course of study, one year more, as a rule, and the presentation of a Thesis, which must be printed and *defended* before the faculty in the Central University in Madrid. This, of course, involves additional hard work and expense, which is far from agreeable to the majority of practitioners, who are usually satisfied with the degree of licentiate. It is very fortunate for the medical students of this country that life is very cheap; I learn, in fact, that a medical student of economical tendencies, or who is so forced to be by necessity, can live quite comfortably with ten reals daily, or an allowance of fifteen dollars a month. With this amount I do not doubt, with my knowledge of the country, that he can board, lodge, wash, smoke, and attend to a number of other wants which are especially known to students. If it is in this respect alone, I need not add that a Spanish student is a luckier fellow than his American brother. I would like to dwell more at length on Spanish student life, to examine it in its multiple and interesting phases; to study the student socially, intellectually, and comparatively, for he is a historic feature of Spanish society; he is indeed an original character, and possesses an individuality which has given him

not only a national but a world-wide celebrity. It is here, in Spain—the great land of legend and of romance—that he is great; here, his virtues, his loves, and even his vices, have been sung by the most melodious versifiers, and have furnished themes for more than one delicious poem and imperishable romance. But this a medical journal, and I have already exceeded the boundaries of epistolary propriety. I must, therefore, restrict myself to what is strictly professional.

I can not neglect to mention a very interesting feature of medical education in which Spain, in common with France, Germany, and other European governments, differs radically from the United States, and that is in the status of the professors. It is in this respect that Europe is unmistakably ahead of us, and it is in this department that our educational system must undergo a reform, and in this direction that the first step must be taken if we are to solve the vexed question of medical education.

In Spain, the government is the supreme controller of the higher branches of education. The professors of all the universities are *ipso facto* government officials, who receive their pay and are under the supervision of the government. The professional corps is divided into eight classes, and salaries are paid according to the class to which the professor belongs. The rank of each professor is determined by his term of service, the first elected beginning with the lowest class (the eighth), and ending with the first. The promotions from one class to another are determined by the vacancies that occur. The salaries are also graded by the classes to which the professors belong, those of the lowest class receiving 14,000 reales, or \$540 per annum, while those in the highest are paid 40,000 reales, or \$2,000 per annum.

The professors are all elected by competitive examination whenever vacancies occur in any of the universities, and the applicants may apply from any section of the

country, so that a professor is often elected to teach in a community with which he is totally unacquainted.

There were formerly free or self-supporting colleges, but these have been completely done away with, so that at present all the universities of Spain are under government control. The system is unquestionably superior to our own, but how can our government, as at present constituted, ever venture to centralize and control in like manner the higher educational institutions of the entire country?

As regards the status of foreign graduates who may wish to practice in Spain, the laws are also different from those of the United States, where they vary according to the state where the practitioner may wish to practice. In Barcelona, if a foreigner desires to enjoy all the privileges and advantages of his Spanish colleagues, he must pass an examination before the faculty, but by paying the sum of \$200 annually he is also allowed to practice, to sign death certificates, and to collect bills, which is about as much as a foreigner would usually care to do. He is not allowed to give expert testimony, or to apply for a professorship, or enjoy other honors, unless he undergoes the regular examination.

I could devote a good deal of space, and consume much more of your time, and perhaps interestingly, by comparing the emoluments of practice in our country with those obtained in Spain. It will suffice to state that a practitioner in this city, and in Spain, is not insulted by being offered a peseta, or twenty cents, for a visit à domicile. This is almost as cheap, though not quite as low as the pay given by some of our benevolent societies in New Orleans. On the other hand, surgical and obstetrical services are proportionately well compensated.

As already stated, there are several important charitable institutions, prominent among which are the Hospital de Santa Cruz, the oldest and largest in the province of Catalonia. It was founded in 1229, through

the bequest of a benevolent priest named Colom. It was originally a comparatively small building, but since that time several of the hospitals which were situated close by have been added to it. So that at present it is a large edifice, covering an area of 17,135 meters. It is exceedingly dilapidated, so that as a hospital building, it is really a poor concern. The hospital has a capacity for 600 patients, though it usually admits a great many more than it should hold. During the five years, from 1860 to 1865, the average number of patients treated annually was 175,542. The daily average was 480.3, the mortality 13.25 per cent. The average cost of each patient was estimated at that time at 1.092 pesetas, about 20.9 cents. In the years 1882 and 1883 the yearly average of patients treated was estimated at 233,924, the daily average, 640.88; mortality 11.76 per cent.

The hospital is divided into sections and wards for surgical, medical, gynecological, obstetric, ophthalmological, and other cases. The hospital is managed by a board consisting of two priests, who represent the legates, and two members of the City Council. The management of the establishment, *i. e.*, the executive, is represented by a curate, who bears the title of prior. The medical staff consists of ten visiting physicians. Five professors and three other adjuncts are, in addition, given a permanent clinical service. There is a chief druggist, with sixteen assistants. There are ten internes, and twenty-five externes. There are forty Brothers and twenty-five Sisters of Charity, who, assisted by other lay nurses, directly attend the sick.

The hospital is supported partially by its own revenues and by a state appropriation. In 1882 the income for that year amounted to 600,000 pesetas or 120,000 dollars. This sum is inadequate to meet the expenses of the establishment, and insufficient to allow the Board of Managers to carry out the improvements much needed to better the institution.

I can not stop to examine the hospital critically; the defects are very apparent even to a most superficial examination, and the buildings, as a whole, are of an obsolete type of architecture, which is incompatible with the principles of modern hospital construction. Of the medical service I can say little, as I came in a very unfavorable season to see the leading teachers at work, or to judge of the most representative methods of instruction and of treatment as adopted in this country. In the surgical wards, which especially interested me, there appeared to be a great dearth of material. All the leading operators were out of the city on vacation, and it seems that the patients knew it, for there were very few in attendance at the clinics. The result of several recent operations were exhibited to me, which showed a progressive appreciation of the latest advances in surgery, and spoke favorably of the skill of the operators. There were several cases of osteotomy for *genu valgum*, treated by MacEwans and Ogston's operations, several excisions of joints, mostly by Ollier's methods, and various amputations with good results.

The internes, who, I will state parenthetically, were very intelligent and courteous, informed me that the results had been much better since Listerism had been rigorously adopted, and from what little I could see aseptic dressings were pretty systematically applied.

Chloroform is generally used in the hospital for anesthetic purposes, though the surgeons admitted the *theoretical* superiority of ether.

The best hospital that I have inspected in Barcelona, and which bears out its excellent local reputation, is the Hospital del Sagrado Corazon, a charitable institution founded almost exclusively by the private enterprise of several wealthy ladies of this city.

This hospital, including the grounds, covers an area of 5,219 meters. It is altogether of modern construction, and though far from possessing all the comforts and advantages which characterize similar institutions

in the States, even in New Orleans—the Hotel Dieu, for instance—it is a very safe and creditable institution. It has only a capacity for one hundred and twenty beds, but it has an outside clinic which attends about 2000 patients annually. The medical staff consists of a director, Dr. Cardenal, who visits the wards twice a week, a resident physician, and a corps of eight or ten visiting physicians, surgeons, and specialists, who attend to the policlinic. All the medical officers, including the directors, attend to their duties gratuitously.

I was particularly pleased with the cleanliness and general neatness of this hospital, which is in charge of the Sisters of Charity, who in this, as in most of the European hospitals, do not confine their work to the purely administrative and domestic departments, but do regular nursing besides. I was shown two cases of supra-pubic cystotomy, one for stone and the other for a villous growth of the bladder; in both instances the patients were relieved. A case of excision of the knee-joint, and one of ovariectomy. Both with excellent results. I noticed quite a number of arthropathies, mostly strumous joints, which are very frequent, I am told, in Spain. The first *successful* ovariectomy in Barcelona was performed in this hospital, in 1882, by Dr. Cardenal, though the credit of the first operation belongs to Dr. Farreras, who operated with unfortunate results in 1880. According to Dr. Fargas, who is one of the most successful ovariectomists in Spain, and certainly one of the leading operators of this city, this operation was first performed in Spain in 1863, by Dr. Federico Rubio, of Madrid. Dr. Cardenal is an enthusiastic Listerite, and carries out the principles of antisepsis and asepsis to the very letter in all his operations. He is at present at work finishing a valuable work on antiseptic surgery, which has already been issued by subscription, and which I am confident will be one of the best contributions made in recent years to Spanish medical literature.

A notable feature of this work is that a knowledge of foreign literature, especially German and English, is displayed, which enables the author to place before his readers the most advanced and authoritative teachings of the day. This leads me to note the fact that there is a very marked tendency on the part of the present generation of Spanish writers to increase their acquaintance with German and English authors, and though American medical writers are not well known as they should be, still even they, I believe, are being gradually popularized and respected, especially since Ashurst's International Encyclopædia of Surgery has been translated into Spanish, and has given the medical *cognoscenti* of this country an idea of what could be done in America.

But of all the visits that I have made, none have afforded me more pleasure or given me a better opportunity of estimating the ability and tendencies of the rising generation of Spanish physicians, than my visit to the private micro-biological laboratory of Dr. Carreras-Aragó, the Nestor of Catalonian ophthalmologists. The laboratory is in charge of Dr. Carreras' talented sons, who have perfected their education in Germany, France, and Switzerland, where they have studied under Koch, Cornil, and Klebs. I was surprised to see such a complete and expensive microscopic and mycological outfit in a private residence. Nothing was wanting in the way of apparatus to conduct the most difficult micro-biological investigation. Among the notable instruments noticed was a stand and complete microscopic outfit from Zeiss' establishment, including a set of lenses and the costly 1-18th inch objective. A complete micro-photographic outfit, which is used very frequently in the laboratory, and various culture-stoves of the Koch and Pasteur models. The histological cabinet was exceptionally rich in rare and difficult sections, and contained, in all, several hundred specimens. The laboratory has been established only recently, but ex-

cellent work has been done already in the study of neoplastic formations. The bacillus tuberculosis is at present under investigation, and Dr. Carreras-Solá has already collected over 315 observations, and will soon publish some interesting deductions. It was in this laboratory that Dr. Ferran, of cholera fame, performed some of his later experiments, and studied the development and natural history of the comma-bacillus. Dr. Ferran, himself, lives in Tortosa, but he is a frequent visitor in Barcelona, where he is held in great respect and esteem in the best professional circles. I was shown, in this laboratory, a very recent collection of micro-photographs made by himself, of his culture of Koch's cholera bacillus, which alone prove him to be no ordinary microscopist. He is at present preparing a work on the history and development of the comma-bacillus, and its prophylactic value as a cholera vaccine. This work will, I do not doubt, tend to correct many misapprehensions in regard to Ferran's status as a microscopist and scientific observer. I have seen some of his work, and judging alone by the information I have gleaned from many trustworthy sources, I am satisfied that he is not the charlatan that he has been represented to be. He may have erred as regard the prophylactic value of his bacillus inoculations, but if he has, he has made an honest mistake, such as any other competent man might make. The truth is, that if we are to judge alone by statistical data, there are very strong reasons to believe that his prophylactic inoculations did exercise some preventive influence during the late cholera epidemic, but the figures are, in themselves, insufficient to completely prove the point, and we must wait the appearance of his work, in which he will doubtless enlighten us on many mooted questions.

I have notes of several additional medical institutions, and of other matters relating to medical education and medical literature in Spain, but I have already imposed so much on your indulgence that I will close,

and reserve, perhaps, for a future occasion, facts of medical interest that I have collected, or that I may collect, while in my tour through the *Iberian Peninsula*.

In conclusion, I would add that, as a result of my present investigations, I am convinced that medicine in Spain is rapidly rising to a high scientific level, and that if we are to trust to the promising signs given by the present generation of medical men, we must even believe that a great future is reserved for it. In a country, however, where political earthquakes are so frequent, and where they shake to their very foundations the oldest and strongest edifices, we can never venture to prophecy the future of any structure, no matter by what architects erected.

M. PASTEUR'S LATEST EXPERIMENTS.

The discussion of Pasteur's work, like all previous discussions of such matters, is carried

on, somewhat intemperately by opposing factions—one admiringly and enthusiastically applauding what they have hastily concluded to be the theories upon which his work is based, the other blindly opposing and ridiculing every supposed act of the great French mycologist.

We have been so frequently appealed to for an opinion upon the merits of the extensive inoculation experiments now going on at Paris, we feel obliged to say definite conclusions can not at present be reached. Our readers may, however, rest assured of the intense earnestness of M. Pasteur, and of the entire plausibility of the theory upon which the practice of protective inoculation against Rabies rest.

Those who can form opinions without facts are alone able, at present, to decide upon the merits of the latest work of this great Frenchman.

PROGRESS will soon present a series of letters from a distinguished contributor, on subjects of great interest to the junior practitioner.

PROGRESS

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DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.
D. W. RAYMOND, BUSINESS MANAGER.

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THE MEDICAL
SCHOOLS AND
THE DENTAL
COLLEGE.

The medical schools of Louisville are singularly fortunate this year. The two winter schools have large

classes; and, although some jealousies brought a little heat to the surface among the students at the Hospital in the early fall, no ripple now appears to disturb the placid surface of their rising tide.

The Kentucky School is rapidly getting its new leasehold in order for the coming term which opens February 10, 1887.

The Hospital College is renovating and enlarging its buildings, and will, before the holidays are over, have its new laboratories and clinic rooms handsomely furnished. The new amphitheater is a model of its kind, and has a seating capacity of about four hundred. The next term here begins January 20, 1887.

The Louisville College of Dentistry just established by Central University is rapidly nearing completion. The dean, Prof. A. Wilkes Smith, M. D., D. D. S., announces the first regular session to begin in January, 1887, and continue twenty weeks. The equipment is to be first-class, and the laboratory and clinical facilities are thought to be all that its friends could desire.

The intimate and direct relations of dentistry to the profession of medicine is such that Central University has located its med-

ical and dental departments upon the same grounds, and provided opportunities for the students of each department to attend the clinical and demonstrative instruction of both.

TRICHIASIS.

The only successful treatment of Trichia-

sis, where the mal-directed hairs are of good size and length, is to transfer them by passing a fine curved needle into the distal edge of the follicle, and, threading the needle with the hair, draw it through the cuticle the desired distance from its original site. Following up this plan until every mal-directed hair has been turned into the new channel made for it by the needle, but few will fall out, and the operation will have to be repeated in very rare instances only.

THE CONGRESS.

It is gratifying to observe the evidences

which portend a successful union of the best elements of the profession at home and abroad in the great International Medical Congress at Washington, Sept. 5, 1887, and painful to observe the agony expressed by those who, on the one hand have denied themselves the privileges of membership, and on the other who, by their peculiar designation of title, etc., are not eligible.

SEND IN YOUR
REPORTS.

PROGRESS invites practitioners to write brief clinical reports,

which it will be prompt to print and lay before a large and choice class of readers. Society reports containing abstracts of papers read, and full reports of the discussions they evoke, will at all times be acceptable matter for our readers.

THE DANIEL'S
CONVERSELY.

Brother Daniel, of Austin, is censured for opposing the introduc-

tion of Christianity into an address to the medical fraternity; and, *Conversely*, brother Daniel, of Memphis, is censured in Kentucky for trying to inject science into the Presbyterian Synod.


PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

OF INTEREST TO OUR READERS.

It is the fashion now-a-days to offer premiums; it ought not to be so, and yet one must follow the fashion.

Both students and doctors are ready enough with their own names as subscribers to PROGRESS, and we have a constituency to be proud of, and yet we are not satisfied, and beg to say *to you*, that for a canvass among your friends, resulting in the sending to us of ten new subscribers at regular rates, \$2 per annum, for each name, we will forward our regards, carriage paid, in the shape of a copy of the PERSONAL MEMOIRS OF U. S. GRANT, 2 vols., nearly 1,300 pages, bound in cloth, the original work sold (only by subscription) at \$7, and published by Charles L. Webster & Co., New York, 1886.

 *This work has never been on sale, and is not purchasable at book-stores.*

W. H. WOLFORD, M. D., 2634 State St., Chicago, Ills.—“I have used Peacock's Bromides in a number of cases with the best results, especially in epilepsy, one case in particular, C. S., a railroad man, having been compelled to quit work on account of the paroxysms coming on every day. After one week's treatment with Peacock's Bro-

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PROGRESS.

We close the year with the following list of advertisers, and our friends we know will feel gratified at the showing. The houses represented are the best in the country; we are very proud of their association with us, and gratefully acknowledge our indebtedness. To them and the new names commencing next month, we have also to say that if their announcements are not pecuniarily profitable it is *not* because PROGRESS is slow or its constituents few:

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RIO CHEMICAL CO.—Mrs. W. H. consulted me on January 20, 1886. On examination she was found to be suffering from chronic uterine inflammation, elongation and ulceration of the os uteri, with antversion and the usual concomitant symptoms, such as frequent desire to micturate, inability to walk, etc. Her womb was easily replaced, but returned to its abnormal position on her attempting to walk. Various kinds of pessaries were attempted, the ulceration having been previously healed by the use of the nitrate of silver and the glycerine plug, but their presence could not be tolerated. The recumbent position was then enforced for a fortnight. During this period her only treatment consisted of mild saline aperients at intervals of two or three days, and the exhibition of aletris cordial in drachm doses three times daily, gradually increased to two drachms. She then began to take gentle exercise and has steadily improved, and is in expectation of soon becoming a mother. She had never been pregnant previously.

HY. BAYFIELD, *L. R. C. P. Surgeon.*
1, SOMEN VILLAS, Lavender Hill, S. W.,
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DEAR SIRS—It gives me pleasure to state that I have used your preparations of Hypophosphites and Wine Coca, with most excellent results. The Wine Coca I used in a case of Exophthalmic Goitre. The patient has been bedridden for three years and it has given her more comfort than anything she has taken and enables her to go about her room with comparative ease. The reputation of your house gives assurance that these valuable remedies are what they are represented to be and I can recommend them both. Yours truly,

T. P. SATTERWHITE.

CASCARA CORDIAL.—That the profession to-day is being awakened to the necessity of palatable medicines, is evidenced by some recent articles that have appeared in current medical literature. Dr. E. S. Riggs, *Therapeutic Gazette*, March, 1885, page 212; Dr. Frank H. Martin (*Ibid*), January, 1886, page 11 *et seq.*; and Dr. Horatio C. Wood (*Ibid*, page 181 *et seq.*) emphasize the desirableness of materially improving the palatability of prescriptions; and other illustrations are not wanting to show the importance this question is assuming in the minds of physicians. While much may be done by a proper selection of the concentrated and improved forms of medicine, and by administering nauseous drugs in pills and granules or capsules, there still remain many drugs which it is necessary or expedient to administer in fluid form.

MESSRS. WURABH & SCHOLTZ have the largest and most comprehensive stock of "good goods" in Louisville. They handle nothing adulterated, and sell nothing they can not conscientiously recommend. It pays in the long run, both physically and morally, to deal with such a house.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN- TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES- SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF, AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., JANUARY, 1887.

No. 7.

GENERAL MEDICINE.

INEXPLICABLE

PYREXIA.

BY

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M. D.,

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[From the British Medical
Journal's report.]

It must be within the experience of every physician to have come across cases of pyrexia, the cause of which he is unable to discover.

No doubt in many in-
stances the patients

have tuberculosis or typhoid fever; still there are cases in which neither typhoid nor tuberculosis will explain the rise of tem- perature, and which we can only call exam- ples of perverted thermogenetic metabolism. It may be worth while to recall the facts that the muscles are the chief thermogenetic tis- sues in the body; that the heat-producing changes in them are quite apart from their motor functions; that this thermogenetic function is presided over by a center which is either close to the fissure of Rolando, or else in the corpus striatum; that there are secondary centers in the cord; that these centers can probably be affected by the stimulation of an afferent nerve in any part of the body; that the cerebral center is con- tinually exercising an inhibitory influence on the thermogenesis; and thus, when the cen- ter is destroyed, the temperature rises.

In addition to the above mechanism, the cutaneous vaso-motor system regulates the temperature of the body to some extent, but has no influence in producing it, and in the group of cases we are considering there is

no evidence whatever that the vaso-motor system is effected. There is at present no decisive evidence to show which part of the thermogenetic system is perverted; it is most probably the center. This perversion is most likely to be functional, and may be fatal, for I take it that a functional disease may kill. It is only by the functions of the various organs that we are enabled to live, and if these be perverted we die; it matters not whether in the post-mortem room we are able to see the cause of this perversion. In the case of many poisons, for example, we can not see it. Then also, apart from these considerations, the pyrexia renders the pa- tient liable to bronchitis and pleurisy, either of which may cause death.

The majority of cases of perverted ther- mogenetic metabolism recover, but first I will give some cases which did not. Rosa B., aged thirty-three, was admitted on Aug- ust 30, 1883, under Dr. Taylor, to whom I am indebted for permission to publish the case. Family, personal, and previous his- tory unimportant; six weeks before admis- sion she had a shivering fit; since then she has had great pain in the legs, loss of appe- tite, and scanty urine. On admission, the only notable points were that there was a transient papular rash, and the urine was high-colored, containing much uratic deposit and one third albumen. The report of the patient's condition during her stay in the hospital is too long to detail here. The chief symptom was a series of violent rigors, and no assignable cause for them was dis-

coverable. During the whole of her stay in the hospital there was hardly a day during which the temperature at one period of the twenty-four hours was not normal or thereabouts, and at some other period considerably raised. These rises were curiously regular. Thus for a week the highest point—which was about 103° —would always be reached at noon, then for a series of days at 3 P. M., then it would again vary to some other time. The patient gradually wasted and died, after she had been in the hospital eleven weeks.

At the post-mortem examination there was recent bronchitis and pleurisy, which had no doubt been the cause of death, but no reason whatever for the pyrexia could be discovered.

During the last twenty years we have had at Guy's, in addition to the above, four cases in which nothing was found to account for the pyrexia. One of them was a man, admitted with high temperature and delirium tremens, in whom the temperature gradually ascended and reached 108° before death; another was a man who was admitted with fits and in a condition of status epilepticus; he had pyrexia and died; another was a child who had frequently had very severe attacks of chorea; on admission she was so bad that chloroform was administered, but without any effect; the temperature began to rise, attained 108.4° , and the child died, while another was a child who, as she was sitting before the fire, was suddenly seized with right-sided convulsions, which continued for about twenty-four hours, the temperature having risen to 109.1° . She died shortly after.

Were it not for these fatal cases, I should hesitate to urge the acceptance of a distinct disease, "inexplicable pyrexia," or "perverted thermogenetic metabolism," but with them before us, it is fair to assume that some of the cases which recover belong to the same category rather than to that of tubercle, typhoid, etc. It has just been hinted that it is probably the calorific center which

is at fault. The points which go to prove this are the following:

1. In many cases, pyrexia is undoubtedly due to a lesion of the central nervous system, as for example, cerebral hemorrhage, tumors, especially of the pons and medulla; also we find pyrexia sometimes in insular sclerosis and locomotor ataxy.

2. In the last four of these five fatal cases here recorded, the central nervous system was evidently at fault.

3. Hysterical pyrexia is now known to be a distinct malady. I recently brought a case before the Clinical Society, and showed the chief characteristics of the disease and the methods by which it could be diagnosed.

For these reasons it seems a probable hypothesis that, in the cases of "perverted thermogenetic metabolism" which recover, the central nervous system is deranged. Like most other functional diseases, as a rule, this is not fatal; but of all functional diseases, it is probably the most likely to do so, for the long-continued pyrexia is liable either to kill by itself or to set up pleurisy and bronchitis, which will carry off the patient. This leads one to remark that many symptoms may exist which tend to obscure the diagnosis, but which are only the result of the pyrexia; thus I have known wasting, headache, delirium, albuminuria, pleurisy, bronchitis, and enlarged spleen to be present. This renders the cases open to much criticism when published, and also makes it necessary to take the greatest possible care in the diagnosis of them.

The proposition that these cases are functional is sufficiently proved by the absence of any visible changes at the post-mortem examination. The word functional is used with the loose meaning that is usually attached to it; by our present light it is impossible to give it an exact definition, but members of the profession understand sufficiently what is meant by it.

In the cases which recover it is difficult with certainty to exclude other diseases. During the year 1884 there were, in Guy's,

fifteen cases in which the only heading that could be found for the report was "pyrexia." Some were, no doubt, intestinal attacks, rheumatic attacks, and other maladies, of which the only symptom present was the pyrexia, but some must, in all probability, have been due to perversion of the calorific center, for the cases in which post-mortem examinations were made have shown that such a disease exists. The only cases I will mention in detail are those which have come under my notice during the last year.

One is that of a man who has much mental work, and who gets diurnal attacks of pyrexia, which are accompanied by headache, and, after they have gone on for a month, he wastes a little, has a slightly enlarged spleen, and suffers from lassitude. He has been examined by many physicians, and the cause of the pyrexia has never been detected, so that at last, by a process of exclusion, it seems necessary to come to the diagnosis of a "perverted heat-center." If he leaves off his work and takes a holiday, he gets all right.

Another case is that of a boy who was in Guy's Hospital from August 22d to December 5th, under the care of Dr. Pye-Smith and myself; during the greater part of his stay his temperature was raised; the only physical sign that could ever be detected was a slight questionable change at one apex; even this was not present during the whole of the time, and it was quite insufficient to account for his pyrexia. He wasted considerably, but eventually recovered, and went out of the hospital, to all appearance, quite well.

I have appended the third case, which shows many symptoms, all probably due to the pyrexia, such as slight bronchitis and slight albuminuria; the œdema of the feet was merely a result of the anemic state of the child, as was likewise the cardiac murmur. It is to be noticed that the temperature continued high long after the pulmonary symptoms had disappeared, and that it was very regular in always attaining its maxi-

mum at the same time of day, a point I have observed in other cases; sometimes the point of maximum would be obtained at the same time of day for a week or so, then it would be at another hour of day for another week or more.

John S., aged eighteen, was admitted under Dr. Carrington, and, in his absence, passed under my care April 5, 1886. One sister is said to have died of consumption, otherwise the family history is unimportant. Seven years ago the patient was in a hospital in Galway for six weeks with a bad cold. He has been in London three years, and thinks that during that time he has been gradually losing health.

Six weeks ago he caught a cold and cough; these passed off. Seventeen days ago his feet began to swell; he got a slight cough, but spat up nothing. He has had pains in the limbs and back, and has got very weak. He has sweated a good deal at night.

Condition on admission is thin and poorly nourished. There is a hemic murmur. On percussion the note is a trifle better at the right apex than the left; on deep breathing there is an occasional *râle* at the left apex. Urine contains one eighth albumen. He complains of pain in the upper part of the back and in both knees. Skin dry and hot; no œdema anywhere; temperature 103° ; optic discs normal; no tubercles on choroïd; no expectoration in which to look for bacilli.

The next day an occasional crepitation could be heard at various parts of the lungs. The urine contained less albumen. April 7th there were rather more moist sounds, but still very few, and a trace of œdema on the right leg just above the ankle and a faint trace of albumen.

After a few days these signs disappeared, but the temperature nevertheless remained high, the patient not having a single physical sign to account for it. During his first week in the hospital the highest temperature was 103.6° , the lowest 100° ; during the second week the highest was 102.4° , the lowest

GENERAL SURGERY.

97.4°; during the third week the highest and lowest were as the week previously, the mean was 101°; during the fourth week the highest was 103.2°, the lowest 98°. After this it gradually fell and became normal in a few days; it then remained slightly subnormal until he went out. The highest temperature of the day was nearly always reached between 2 and 6 P. M.

The above cases—some fatal, some not—seem to point to the desirability of recognizing cases of “perverted thermogenetic metabolism” as a distinct group, probably due to a perversion of the calorific centers. I look upon them as distinct from hysterical pyrexia, the peculiarities of which are indicated in the paper brought before the Clinical Society, just as hystero-epilepsy is distinct from genuine epilepsy.

CONSUMPTION
AMONG THE
INDIANS.

Speaking of consumption among the Indians, Washington Matthews, M. D., Surgeon United States Army, says: “My first experience with the Indians, including a period of twenty-one years, was among some of the wildest tribes then existing, many of them prosperous, well nourished, dwelling in the heart of the buffalo range, in the healthful climate of the Upper Missouri and Yellowstone Valleys. I was astonished to find such a disease as consumption among these people, and still more so to find it of frequent occurrence. My opportunities have been such as to convince me that consumption increases as attempts are made to civilize the Indians.”

From the records of the United States Census Bureau it may readily be established that the older settled districts of the United States rank very nearly as high in point of mortality from tuberculosis as the more popular health resorts.

Such observations will dampen the ardor of the advocates of the high mountain ranges of the West, or, in fact, of any other climatic resort for consumptives.

RECTOTOMY.

BY
JOSEPH M. MATHEWS,
M. D.

Professor of Principles and Practice of Surgery and Diseases of the Rectum in the Kentucky School of Medicine.

It often becomes the duty of the surgeon to devise and practice operations for the temporary relief of patients. Even in this much good may be accomplished. The lit-

tle child, dying of diphtheria, is calmed into a quiet sleep by the introduction of the tube into the larynx. The patient suffering from the terrible inroads of a cancer of the rectum, may be saved much agonizing pain by the operation of *Rectotomy*. Here the similitude between the two operations, intubation and rectotomy, ends. If cancer exists, rectotomy only palliates. If strictures exist, even to a threatened obstruction of the bowel, but are benign in their nature, a radical cure can be hoped for by this operation. I have seen patients of this class so quickly relieved as to have all bad symptoms pass away as if by magic. The wonder is, that there are such varied opinions as to which is the best method to pursue in the treatment of these strictures. The aim of all suggested plans is to accomplish the same end, viz: The eradication of the stricture. I shall, as succinctly as possible, mention my objections to the other methods, and my reasons for preferring *division* in reference to them all. The following are the plans of treatment mentioned by the authors:

- 1. Internal administration of medicines.
- 2. Local applications.
- 3. Gradual dilatation.
- 4. Forcible divulsion.
- 5. Division by the knife.

In the first plan, administration of medicines, I wish simply to say that I have no faith whatever. The idea must have originated in the treatment of syphilitic patients. I quite indorse the theory that syphilis does often manifest itself in the rectum, but even granting the stricture can be traced to such origin, I am confident that even then

the administration of anti-syphilitic remedies will do no good. Strictures of this kind are never reabsorbed.

The second plan is mentioned simply to denounce; any local applications made to such surfaces will add to the trouble.

To the third method, gradual dilatation, there are serious objections. It is usually practiced by introducing a bougie—Wales' is the best—beyond the strictured surface, two or three times a week. If the pathology of a stricture is studied for a moment, the folly of such treatment, I imagine, can be seen. An irritation of some kind, dysentery, a fish bone, trauma, etc., etc., existed, and was kept up until inflammatory action was excited, and in consequence plastic material sufficient was thrown out to stricture the gut. Now, to apply an irritant, two or three times a week, in the form of a bougie, is but to cause the deposition of more plastic material, which is but adding fuel to the fire.

In the plan of forcible divulsion, there are many advantages over gradual dilatation, but to this there are two serious objections, viz: Shock and hemorrhage. In one case, especially, I remember to have had great trouble to control the hemorrhage, which was not accomplished until the rectum was plugged.

The operation by division (rectotomy) has all of the advantages and none of the disadvantages of the others. For its elucidation it is unnecessary to mention but two classes of stricture of the rectum—malignant and benign. During the lifetime of Dr. Erskine Mason, of New York, he was a decided advocate of colotomy in cases of cancer of the rectum. To this practice I could never agree. On the contrary, I believed then, and believe now, that colotomy is never justifiable in cases of cancer of the rectum. My reasons are, briefly, these: 1. Colotomy is a dangerous operation. 2. If successfully done it does not prolong life. 3. It is disgusting in its result. 4. It does not relieve pain. Certainly, then, there is

nothing in it to advocate over rectotomy, but on the contrary, I maintain: 1. That rectotomy is not a dangerous operation. 2. It is not disgusting in its result. 3. It does relieve pain. Hence, I believe that in all cases of cancer of the rectum which can not be extirpated, rectotomy should be done, where the strictured surfaces prevent the free passage of the fæces. I desire for a moment to speak of strictures of the rectum benign in nature. If rectotomy is to be advised in strictures of a malignant origin, much more should it be advocated in those arising from other causes. I have known patients, especially in hospital life, to die from benign stricture of the rectum, which had been overlooked for so many years that serious complication had arisen which ended in death. As some of the causes of simple stricture, may be mentioned: dysentery, foreign bodies, pregnancy, gonorrhea, syphilis, etc. After stricture has resulted from any of these, oftentimes the only thing complained of is obstinate constipation, for the which physicians will prescribe aperient and purgative medicines. It is no uncommon thing for me to find a strictured surface in these patients so close that the finger can not be pushed through it. With these, of course, it is but a question of time, and very short time, before total obstruction takes place, and the death certificate entered giving some obscure disease. It is this class of patients that is benefited by rectotomy. To them it gives instant relief and prolongs life. The operation as recommended and practiced by Verneuil, is done in the following manner: The whole stricture must be divided from its upper edge down to the coccyx, and through its entire depth. Thus a drain is made from which all discharges flow, and as it heals the ulceration ceases and the stricture sometimes cured. The patient being in lithotomy position, pass the finger through the stricture; then introduce a long knife along the finger until the point is fully above the stricture; cut firmly down to its

whole depth, even to the sacrum, if necessary, and bring the knife out at the tip of the coccyx.

FOREIGN BODIES IN THE BLADDER.

BY
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M. D.,
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and Practice of Surgery,
and Clinical Surgery,
in the Hospital Col-
lege of Medicine.*

[Read to the Mitchell Dis-
trict Medical Society,
Dec. 31st, 1886.]

When one reviews the numerous instances and varied character of the substances that have been introduced into the human bladder, the subject naturally becomes one of interest, from its probable occurrence, and also from the difficulty

often attending the removal of solids from this viscus. The best classification of the introduced foreign bodies found in the bladder is that of Poulet, who divides them into (1) those of surgical or therapeutic origin, (2) those of erotic origin, and (3) those of accidental origin or resulting from perversion of ideas.

Viewed in all its aspects, the subject of introduced foreign bodies in the bladder is one too extensive to be dealt with in a paper the intended dimensions of this. The aim is to draw attention to the physical characteristics of the most common of these agents as indicating the most rational procedure for relief.

Among the usual bodies of surgical origin are pieces of bougies, pieces of lithoclasts, catheters, etc. Of erotic and accidental origin, pins, pencils, pieces of wood, grains or seed, straw, grass, etc.

Diagnosis.—To determine the presence of such bodies in the bladder it is necessary to resort to all ordinary means employed, also to take into account the history of the individual, personal peculiarities, etc. The cases of surgical origin will usually give a clear history sufficient to form a correct diagnosis. Those the result of base and unmentionable practices, impelled by a sense of their shame, usually conceal every thing in their power to prevent the surgeon in making a diagnosis.

Being satisfied that an introduced body occupies the bladder, the next step is to obtain a knowledge of its size, shape, consistency, etc. In cases of broken bougies, catheters, and surgical instruments, we should, if possible, procure the part from which the foreign body was broken. This assists much in forming an idea of the agent, and also in determining when all of it has been removed by an operation. When we have no such companion-piece as a guide, and it is impossible to get a clear history from the patient, the sound as for stone, together with any one of the various lithotrites, will usually enable us to form a fair conception of the foreign body. Especially is the lithotrite to be commended for this purpose. By its use we may determine the presence of soft bodies, and measure the size of hard ones.

The diagnosis of a foreign body together with its nature having been made, what is the best method of removing it? There are three ways of proceeding: (1) by means which tend to spontaneous expulsion; (2) removal through the natural passages; (3) removal by cystotomy. Experience has proven that the first method is not to be relied upon. The few isolated cases where this favorable result has occurred seeming to be accidental.

Extraction through the natural passage.—After the discovery of instruments for extraction of foreign bodies from the bladder, and later the perfection of the modern lithotrite, this became, and is still a very favorite method of procedure with many surgeons. Among the names of those who have performed brilliant operations in this field may be mentioned that of Civiale, Leroy, and others.

Prior to the year 1830 cystotomy was almost the universal way of removing foreign bodies from the bladder. After that time, and up to the year 1856, according to Denuncè, of 122 cases collected, cystotomy was performed only twenty-one times [Poulet Foreign Bodies in Surgery].

Like all new discoveries for good, extraction by this method seems to have been carried beyond its field of application. For certainly since that time (1856) there has been much diversity of opinion concerning the relative merits of extraction through the meatus and by perineal cystotomy. There are many dangers connected with extraction through the natural passage that was not recognized when first it was practiced, hence the great popularity for a time of a method which did away with the hemorrhage, urinary infiltration, etc., of perineal cystotomy. We now appreciate that a good condition of the patient's general health, bladder, kidneys, etc., are quite essential to successful results in surgical manipulations of the bladder through the urethra. Many ingenious instruments have been devised for extraction by the urethra, but all are more or less fashioned after the ordinary lithotrite. In deciding upon the method to be employed in removing the foreign body two points must be considered: (1) the nature of the body to be removed; (2) the condition of the patient's bladder and urethra, and I might add the length of time the foreign body has remained in the bladder.

Every case of this kind is a law unto itself, but if I might be permitted to formulate a general table of rules for our guidance in the method to be selected by operation it would be this:

Cases of recent origin, where the bladder is healthy and the exact nature of the foreign body is known.

For extraction through the normal passage.—Pieces of bougies and catheters when not too brittle, nails, tacks, grains of corn, pebbles, short pieces of silver catheters, and pins, when short.

For cystotomy, perineal or otherwise.—(1) All long standing cases where the body is in all probability incrustated with phosphatic deposits and otherwise changed. (2) Where it is impossible to ascertain an exact knowledge of the body. (3) Long, sharp, or irregular foreign bodies, where extraction

through the normal urethra would likely result in danger to the bladder and adjacent structures, by turning body and adjusting instruments. (4) All impacted foreign bodies. (5) Very soft and friable bodies, as grass, straw, etc. (6) Where an unusual degree of cystitis is present. (7) Where extraction through natural passage has failed in whole or in part.

The following case well illustrates a not very rare foreign body in the bladder, and also a combination of both methods in its removal.

James Davis, aged twenty-four years, native of Kentucky, occupation farmer, was as admitted to the Louisville City Hospital, April 25, 1886.

History.—Six weeks before, while ill from pneumonia, it became necessary to draw his urine with a catheter. This the physician did, but in removing the instrument, a rubber one, it broke. The physician having no instrument with him suitable to remove the piece from the urethra, instructed the patient to grasp the penis around the catheter and hold it, while he hastened for an instrument to extract it. On his return the broken piece of catheter had slipped from the patient's grasp and entered the bladder. Nothing more was attempted on account of his condition. After recovery he was referred by his physician to my friend Doctor Cecil, through whose kindness I took charge of the case.

At date of admittance the patient's general health was little impaired, he was quite a robust man. The cystitis engendered by the foreign body was not as considerable as might have been expected, judging from the time it had remained. He rose to void his water possibly six times during the night. April the 27th, extraction through the urethra was decided upon and performed. After anesthetizing the patient, the bladder was injected with warm water and a little listerine, and a Thompson's lithotrite, small size, introduced. The instrument soon seized the foreign body, but on account of its softness

it was impossible to tell at what part of it. Closure and removal of the lithotrite brought a piece of the catheter, about four inches long, evidently broken in passing the neck of the bladder. Several other attempts were made with the result of removing three and a quarter more inches, in pieces an inch and less in length. The instrument failed to detect any more, and adjusting the pieces we had removed, they fitted so accurately as to leave the conclusion that all had been extracted. The patient was placed in bed and warm bottles applied to the surface of the body, as there was considerable shock. The cystitis was very much increased by the operation, giving the patient great pain, with a very frequent desire to micturate, and a scalding sensation during the act. An epididymitis also developed on the fifth day after the operation. This was treated by tobacco poultices, and for the cystitis the following:

R Ext. pichi. fld ℥ii;
 Syrupi corticis aurant
 Aquæ aa. ℥i.

M. Sig.—Desertspoonful every three or four hours.

This improved the cystitis greatly, and by the sixteenth day he was able to sit up. He rapidly improved, and left the hospital five weeks from the date of his admission. I heard no more from this patient until November 17, 1886, when he presented at the hospital with the statement that he suffered very little for several weeks after returning home in June, but for the past two months he had suffered a great deal with his bladder.

Examination with a sound revealed the presence of a stone of considerable size. After two days of preliminary treatment, November 19th, lateral cystotomy was performed. On passing the finger into the bladder a large, irregular, rather friable phosphatic concretion was found. The first attempt at removal resulted in breaking it, and the remainder of the operation was completed with forceps and scoop. The stone had as a nucleus nearly $3\frac{1}{2}$ inches of

rubber catheter left from the former operation. This was in fragments surrounded by the phosphatic deposit. Whether there was just one piece, and that broke in extraction, I am unable to say.

The stone, together with the catheter it was around, weighed seventeen drachms, or two and one eighth ounces. The bladder was washed once a day for one week.

All the urine passed by the natural channel on the tenth day. The patient sat up in two weeks, and returned home entirely well four weeks from the date of his admission.

This case illustrates how difficult, in soft bodies, to tell when all has been removed. A piece of rubber catheter, two or three inches long, may be concealed in the folds of the bladder near the fundus, rendering its detection impossible. Again, the consistency is so much like that of a fold of the bladder that there is no little danger of wounding the viscus in attempts at finding the foreign body.

We supposed at the outset in the case that there was about seven or eight inches of the catheter, when in fact there proved to be about ten. The remarkable feature of this case was the nature of the accident; for the catheter, I was reliably informed by the physician, was entirely new, and certainly bore evidence of being a good instrument. It can only be accounted for by a powerful spasm of the patient's urethra suddenly, for the physician is known to be very capable and careful. The next point is the rapid formation of a stone so large.

At the first operation with the lithotrite, which was six weeks after the accident, very little deposit was found on the catheter.

It may be the presence of the foreign body had the double effect of irritating the nervous system, so as to cause increased elimination of phosphates, and of maintaining a chronic cystitis which caused precipitation of the calcareous matters in the urine, and thus brought on the enormous concretion in so short a space of time.

DERMATOLOGY.

BY

F. E. DANIEL, M. D.,

OF AUSTIN.

[A report read to the Texas
State Medical Association,
at Dallas.]

In reviewing the vast field of dermatological practice, and that of venereal disease, both in Europe and America, for the purpose of casting up our net gains for the

twelve months, and of reckoning the real progress made in those important branches of study, while we find no single instance of a brilliant discovery having been made—no isolated case of marked progress and advancement—we are surprised at the great number of small items indicative of progress, in our knowledge of those diseases, and more particularly in their therapy, which mark the year's work, and which, in the aggregate, indicate no mean sum-total of progress.

Compared to the department of surgery, whose record has been illuminated, and made almost glorious by the meteor-like advent of the omnipotent cocaine, and continually enriched by developments in the therapeutics of the wonderful "bichloride," which has, in so short a time, revolutionized surgical practice all over the civilized world, the progress in dermatology has been as that of the tortoise; yet, like the tortoise, in the story of that slow animal and the fleet-foot antelope, it has managed, *some how*, to keep up. Or, to quote the quaint old Scotch adage, "many a mickle makes a muckle," we content ourselves with the reflection that the numerous items of small gains in our knowledge of the etiology, pathology, and therapeutics of skin diseases constitute, in the aggregate, a material advance on the previous year; and that dermatology has not been left, after all, very far behind in the general advance "all along the lines." In the meantime, it is assuring to know that there are certain important questions undergoing vigorous investigation, and in a fair way of satisfactory solution, which have heretofore been as a sealed book. On the other hand, *per contra*, ques-

tions of equal importance, continually studied, are, apparently, as far from satisfactory solution as before. For instance, and to begin at the tail end of our subject, the question of the limitation of the contagion of syphilis; the transmissibility from father to foetus; and the ultimate cause, or contagious element of the disease are still *sub-judice*.

The question as to

THE LIMITATION
OF THE CON-
TAGION OF
SYPHILIS

Is being discussed with a probability of our being able, ere long, to fix a definite limit to the time when one may

marry, after having been infected with the disease. One of the most important contributions to the literature of the subject, within the twelve months, is a paper by Fessenden N. Otis, published in the March number of the *Journal of Cutaneous and Venereal Diseases*.

In that paper Dr. Otis, who is known to be one of the most painstaking and conscientious investigators in that department of study; whose works are everywhere quoted, and who is justly regarded as one of the foremost syphilographers of the present day, says that the

TRUE CONTAGIUM
OF SYPHILIS

Has not yet been found; "Though for more than twenty

years microscopists, all over the world, have been diligently searching for the syphilitic entity, or virus, but without success, notwithstanding its alleged discovery has been announced with great publicity and positiveness from time to time. First, it was a 'minute and peculiar vegetable spore' (Salisbury); but this, through more extended investigation, was found unessential to the development of syphilis. It has been displayed to Continental 'scientists as 'a peculiar property' (Lorstorfer), and was accepted for a brief period as the veritable contagium of syphilis; but this was soon proved to be but the simple outcome of va-

rious forms of cachexia. Then ‘a rod-shaped micrococcus’ (Klebs) was brought forward, and claimed to be capable of producing lesions resembling late syphilis; but this, too, proved to be a failure.

“More recently, within the past year, it was announced that DeLustgarten, of Vienna, had at last discovered the true virus of syphilis, in ‘a characteristic bacillus,’ which he described with great exactness and circumstantiality. Within a few months, however, investigations touching the validity of this discovery were set on foot by M. Cornil, of Paris, when it was soon determined that Lustgarten’s discovery must be relegated to the list of previous failures. The bacillus in question, while found frequently associated with syphilitic lesions, was not confined to them, but was found in the secretions about the prepuce, the pudendum, and the anus, in persons not syphilitic.

“It will thus be seen that the disease germ of Beale is the only one now in the field which demands consideration as to the contagium of syphilis.”

And, again, this author says:

“We have, in the degraded white blood-corpuscle of Beale, all the necessary attributes to figure effectively as the true contagium of syphilis.”

The author then argues that, as the lesions of syphilis are produced by a proliferation of those cell elements, and that, syphilis being a disease, essentially, of growth, destruction of tissue occurring only as a result of overgrowth, through which the vessels of nutrition of a part are obstructed, it is only necessary, by proper treatment, to arrest this proliferation, which is the active stage of the disease, and eliminate the morbid element, to put an end to its contagiousness; and that there is no such thing as “tertiary syphilis;” the pathological condition generally called “tertiary” being only *sequellæ* of the second, or active stage; and that matter taken from so-called tertiary lesions is not inoculable—is not capable of producing the disease in a healthy person. Or, to

quote the author’s exact words, “That any syphilitic disease, proven to be such by its power to transmit syphilis, has been communicated to healthy persons, after the active or so-called secondary stage of the disease has passed, there is no well authenticated evidence to prove.”

With regard to the arrest of the active stage, and the elimination of the cell material, just mentioned, and the time during which treatment should be continued, the author says: “It has, however, now come to be understood, practically, that when the accumulations of the cell material which have caused the lesions of the secondary stage, and the enlargement of the lymphatic glands at various points, have been eliminated, the disease is, as a rule, no longer contagious; and persons, the subjects of syphilis, who have, by systematic and thorough treatment, been brought to this condition are said to be cured.”

THE TIME
DURING WHICH
TREATMENT IS
RECOMMENDED

By various authors to be continued, is pretty uniformly fixed at about three years. If, then, the patient has been free from all sign of syphilis for one year, he is pronounced cured, and is permitted to marry.

Dr. Otis has startled the medical world by denying the possibility of the

TRANSMISSION
OF SYPHILIS DIRECTLY FROM
THE FATHER
TO THE
FŒTUS,

Claiming that the child receives the *disease* (as in the case of acquiring small-pox, from the mother) or nothing; that it inherits the *disease*, and not the *diathesis*. His as-

sertion is based upon the fact that the syphilitic contagium, or what is said to be the contagious element of syphilis, is not found in any of the physiological secretions; and that the only communication between the father and the fœtus is through the medium of the spermatozoa. This position is being

fiercely assailed, as might well be expected. The statement of this author is entitled to great weight; and, as the subject is of vast importance in legal medicine, no doubt it will exert much influence on future opinion.

AS TO THE

TREATMENT

OF SYPHILIS,

We may say there is something new. Dr. Leibreich, of Berlin, gives the preference to the "formamide" of mercury, a treatment introduced by himself in the hospitals. The formula he uses is: "Formic acid, which is represented by $\frac{H}{CO.OOO}$. When two molecules of oxygen are replaced by ammonia, we have $\frac{H}{CO.NH_2}$; and when one molecule of hydrogen is replaced by one of mercury, we have $\frac{H}{CO-1-ng-1-pg}$, which is the symbol of, and shows, the chemistry of the formamide of mercury."

This, when injected deep into the tissues, causes much less chemical reaction than the solution of per-chloride of mercury, or, indeed, any other solution heretofore used. Kaposi still prefers mercurial inunction, claiming the best results from that method. The formamide of mercury is becoming popular, the results claimed for it being something extraordinary. A one-per-cent solution in distilled water is the strength recommended; and, of this, about fifteen minims are injected hypodermically into the muscles of the nates every second day. No pain is caused; nor are abscesses apt to form, though the needle is plunged deeply into the tissues. When the needle is withdrawn, the part should be rubbed briskly with the hand to diffuse the fluid through the cellular tissue. In cutaneous affections of a syphilitic character, this treatment causes a rapid disappearance of the eruption; and from twelve to eighteen injections only are required.

CHANCRES

Are treated with iodoform, preferably, and very generally, till nearly healed, then covered with emplastrum hydrasgyri.

PYROGALIC ACID.

In the proportion of one part to five or six of bismuth or starch, has been recommended, though, as to that, pyrogalic acid has had a run recently, and has been tried in every thing, since introduced by Jarisch seven years ago, and experimented with by Vidal in skin disease. Whenever acaustic is required, this acid seems to be useful.

PEPSINE

Has recently come into use as a favorable treatment for chancre and chancroid, upon what principle I can not say, though good results are claimed for it.

An important innovation, however, in the treatment of chancre, is its destruction by

ELECTROLYSIS,

As proposed very recently by Dr. G. H. Fox. Dr. Fox says the idea is original, and was suggested as a substitute for excision; the effect of excision being purely local, and there is doubt, always, as to whether the entire diseased mass is removed; whereas, electrolysis has a destructive action on the virus beyond the seat of the actual destruction of tissue.

BUBOES

Are freely incised, as soon as pus forms: then the anterior is scraped with the sharp spoon, and the part dressed with iodoform, and covered with salicylic acid.

Injecting the bubo with strong carbolic acid just prior to suppuration, as first recommended by Dr. Morse K. Taylor, has been revived; and, in the *Medical News* for January, Dr. Philip F. Harvey reports ten cases successfully treated by that method.

A new feature in practice is the

TREATMENT OF ACNE

By the daily introduction of a cold steel sound into the urethra. Dr. Denslow, of St. Paul, at the last meeting of the American Dermatological Association, gave an account of a number of cases coming under

his observation, in which there were reflex conditions, associated with such conditions of the urethra, as contracted meatus, stricture, and sensitiveness of the prostatic urethra. In these cases, removal of the urethral trouble produced an alleviation or cure of the affection to which attention had been directed, and the Doctor reported four cases of acne in which this treatment was successful. Others have had similar experiences.

Speaking of acne, somehow the

BROMIDE OF ARSENIC	Has acquired a reputation of being almost a "specific for pimples," and on the authority of Piffard, as alleged—and, recently, an article to that effect went the rounds of the American medical press. But Dr. Piffard denies having made the assertion. He finds, however, bromide of arsenic serviceable in the pustular form of acne, and uses a one-per-cent solution in alcohol. Of this, he gives one or two minims (not drops)—one hundredth to one fiftieth of a grain—in a wine-glass full of water, two or three times a day. As between sulphide calcium and bromide of arsenic in acne, the latter should be preferred, according to this authority, in cases of a lymphatic character, and the former in those of a more florid type. The best local treatment for this very troublesome affection is <i>hot water</i> —as hot as can be borne—applied by sponge or cloth, wrung out, and pressed to the engorged parts, after evacuating the sebum, or, in the pustular form, the pus.
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Perhaps one of the most important discoveries in the study of cutaneous diseases, recorded during the past twelve months, is that of the

BACTERIUM (DE-CALVAN) OF NON-SYPHILITIC ALOPECIA AREATA	—About the last disease in the world one would have supposed to be caused by a microbe. At a late meeting of a German society, Professor Von Schlen called attention to his having made cultures of characteristic micro-organisms,
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taken from a typical case of alopecia areata. He carefully eliminated all sources of doubt arising from a possible mistake of the disease for tinea tonsurans, with which it is most frequently confounded, and maintained that these cocci are both constant and pathognomonic of that disease. He succeeded in producing areas of baldness in animals by inoculation with the organisms, a pure culture of which had been successfully obtained.

Prior to this discovery, it had been ascertained, experimentally, that remedies possessing parasitical properties were serviceable in this form of baldness, and especially chrysorobin. The existence of a micrococcus as the etiological factor may explain the good results of the drug.

I have recently met with two cases of

ALOPECIA OF A SYMPTOMATIC NATURE,	Which yielded promptly upon the removal of the local affection to which they were due or associated. One was reported in <i>Daniel's Texas Medical Journal</i> for October, by the father of the patient, a leading physician of this State, and a member of this association.
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The other case was submitted to me by Dr. Morris, of Atlanta, Cass County, and was one of much interest. The child, a girl of twelve, had been entirely bald for eight years, and was, at the time, shedding her brows and lashes. At two years of age she suffered inflammation of the middle ear, and suppuration; after which the hair began to fall. She continued to be troubled with earache and occasional discharge, and, at four years of age, she was completely destitute of hair on the head. By my advice, Dr. Morris directed his attention to the suppurative otitis, and the child's general health; after the restoration of which, by the simple application of stimulating lotions, the hair returned, and, in a few months, Dr. Morris informed me the child had a full suit of soft, natural hair.

Apropos of chrysophanic acid : after long controversy, and much patient experiment and observation, chrysophanic acid is acknowledged to be the safest, surest and best remedy we have, so far as is known, for the treatment of the vexatious malady, psoriasis.

Vidal, of Paris, first used pyrogalic acid in psoriasis, and reported favorable results, when it at once became popular, and, like all new remedies, it had a rise, progress, and decline. It was found—although effective in many cases—to be attended with danger, and, unless carefully guarded, to be capable of producing alarming symptoms, and even death. Hence, after enjoying a brief notoriety as *the* remedy for that troublesome affection, and dermatologists were about to exclaim “Eureka!” it suddenly fell from its high place, and the post of honor has been, by common consent, awarded to the former article—the chrysorobin—as a cure for psoriasis. The beneficial effects of this drug are not, however, confined to the treatment of psoriasis; but in all parasitic, and many non-parasitic diseases, it is almost a specific. One of the most important therapeutic advances of the year is the combination of chrysophanic acid with traumaticine, for which we are indebted to Ausspitz, though to Dr. R. W. Taylor, of New York, belongs the credit of having solved the problem of the application of chrysophanic, pyrogalic and salicylic acid, and other useful parasiticides, by the introduction of what is called fixed dressings. He first used collodion for the purpose; then tr. benzoin and tr. myrrh, etc. This method of application, while retaining the remedy in position in contact with the disease, and excluding the air, also obviates the very serious objection to chrysophanic acid—its property of staining every thing with which it comes in contact. Dr. W. T. Alexander found this preparation, which has now come into general use, and which, with the collodion solutions, etc., has about superseded the medicated bandages and plasters, intro-

duced by Unna last year, a specific for tryphophylosis capitis in hospitals, either with or without epilation. The application is harmless, there being no danger of cutaneous absorption; the only caution to be observed is in applying this acid about the face, as it is apt to produce a violent conjunctivitis. And again, Dr. Fox proposes an improvement. He says an ethereal solution of caoutchouc (in Squibbs' ether) is much better than the traumaticine, or the collodion solutions, the ether being less irritating than the chloroform, which forms the solvent in the former preparation, while the caoutchouc is more elastic than the collodion.

Our space will not permit us to go into a detailed account of the rise, decline, and fall of the “oleates,” but we suppose our readers are aware that, after a thorough and impartial trial in all sorts of skin diseases and a brief popularity, this method of medication has been almost entirely abandoned. At the last meeting of the American Dermatological Association, a consensus of opinion was had on the subject of the value of the oleates in skin affections; and it was found that, with the exception, perhaps, of the oleate of mercury, they were very generally condemned; and the exception was thought to be no better than any other preparation of that base, and even inferior to the blue ointment (Stelwagon).

The antimonial treatment of skin diseases has attracted some attention, and made some popularity. From the well-known value of antimony in catarrh of the lungs or bronchi, Dr. Kent Spender conceived that it would be useful in catarrhal affections of the skin; and, especially remembering its influence on the cutaneous nerve peripheries, he was induced to give it a trial, and has met with gratifying results. By virtue of this last-named property, the wine of antimony, in small doses, is useful in that form of pruritus of the skin, unattended with any lesion. Professor Hardaway gives four drops three times a day, increased *guttatim*

to seven drop doses. I can add my own testimony to its efficacy, when so administered, in those unpleasant conditions of formication, which, unattended with any eruption, provoke an irresistible disposition to scratch. But in pruritus—local—from whatever cause, cocaine comes to us as a ministering angel.

The long controversy as to the relation of lupus vulgaris to tuberculosis has, apparently, been settled by the detection of the tuberculosis bacillus (by Koch) in flaps of luprous tissue, and, subsequently, the successful cultivation of the bacilli outside of the human body, and by producing lasting general tuberculosis in the tissues of some of the lower animals by injecting them with these culture fluids. Luprus, then, is local tuberculosis; though, according to Reihl, there are four distinct forms of disease of the skin which must be designated tuberculous. The first is the miliary tuberculosis, first described by Jarisch, which is to be regarded as true tuberculosis; the others are scrofuloderma and lupus vulgaris. To these Reihl would add, now, a fourth. In the *Weiner Medical Presse*, November, 1885, he describes what he calls a new variety of tuberculosis of the skin; but, from its clinical features, it does not seem to differ from scrofuloderma, as described by Duhring, in the third edition of his work; and it, no doubt, belongs to that class. A writer on this subject says: "While it can no longer be denied that lupus is a tuberculosis of the skin, tuberculosis of the skin is not lupus."

Of new therapeutic agents which have lately been introduced into dermatological practice, and found favor, in addition to the formamide of mercury, in syphilis, and syphilitic dermatoses, may be prominently mentioned resorcin, which has been found highly beneficial. M. Ihle (*Monobschiftie fur Praktisch Dermatologie*, December, 1885) reports favorable results in a number of cutaneous diseases. In acute eczema, it is rather too irritating; but, in the chronic

forms, it acts beneficially, by removing the thickened skin, etc. It is employed in the form of an ointment, in strength varying from five to fifty per cent. In parasitic diseases, such as tinea tonsurans, tinea sycosis, etc., due to the trichophyton fungus, it acts promptly, and may, Dr. Ihle says, be regarded as a specific. It is also useful in tinea versicola, and eczema marginatum and in seborrhea. An ointment of resorcin, 5 to 10 parts; olei ricini, 45 parts; spirits vini, 150 parts; balsam Peru, 0.5, rubbed in daily with a flannel rag or sponge, will allay the itching in the latter disease, and in pityriasis, and arrest the falling of the hair. The strong astringent and drying properties of resorcin render it peculiarly serviceable in acuminate warts, and in syphilitic condylomata. It is also useful in those cases of psoriasis where chrysophanic acid and pyrogalic acid are not well borne; and, on account of the danger of conjunctivitis in connection with the use of chrysophanic acid about the face, just pointed out, resorcin is preferable for application about the mouth, nose and eyelids; as well, also, on account of its lack of odor. One case, at least, of epithelioma of the face, is reported cured by the local use of resorcin alone.

There are other new remedies worthy of mention; among them, particularly so, is ichthyol, or the salts of ichthyo-sulphonic acid. This substance is procured from a mineral oil, rich in sulphur, which is obtained from a bituminous, calcareous slate. The preparation known as sulpho-ichthiol-ammonium, which is readily soluble in water, and is harmless, has a favorable effect in pityriasis, seborrhea-sicca, ichthyosis, and the desquamation which follows the acute exanthemata.

Another new acid preparation is procured from ergot; and, being supposed to be the gangrene-producing element, is called by Unna—who, I believe, first used it—sphacelinic acid. This remedy has a marked influence over local hyperæmia of the skin,

and is used successfully in rosacea and kindred affections.

Such, gentlemen, is a brief and very imperfect review of the dermatological field, since our last meeting. It would be too tedious to go into further details, which my deep interest in the subject prompts me to do; and I am warned that I have already occupied your valuable time too long.

In conclusion, I will say that it is unfortunate that less interest is taken in, and less known of diseases of the skin by our general practitioners than, perhaps, any other branch of practice—and even by the profession at large. *Always* a secondary place is given it in current medical literature; and you will scarcely pick up a medical journal, in which, if “dermatology” is mentioned at all, it is not stuck off in an unoccupied corner—apparently to fill up—on the principle, I suppose, of the old farmer, who sowed all his worthless land in cow peas! That this should be so seems strange, indeed, when we reflect on the importance of this great external covering of the whole body, and realize how much the health, happiness and prosperity of the human family depend upon the performance of its many functions; and when we consider that it is the most complicated organ in the whole body, as well as the most exposed to the atmosphere, the vicissitudes of temperature, and to traumatisms; and, lastly, its relation to the mucous membrane—the internal lining of the whole body—it seems strange, indeed, that the subject of the diseases to which it is so liable should not receive a larger share of the time and attention of every physician. It must be due to the fact that the nomenclature is so confused and confusing—a given disease may be known by a dozen different names, and the various stages of a disease mistaken for and described as a distinct disease. Every doctor who encounters a skin lesion which he never saw before straightway rushes into the journals, or into the Dermatological Society, with it, describes it, and proposes a new

name for it. Hence, the list of diseases of the skin is almost interminable, and still growing rapidly. There appears to be a kind of mania in certain quarters for finding new diseases of the skin, and for fixing or proposing hard names for them. In my humble judgment, the crying need of the hour is a new and simple classification—a revision of the nomenclature and the adoption of a new one, say by the International Congress—which, being based upon the part, or structure, or tissue of the skin affected, shall be accepted as the standard. Such classification would, in my judgment, do more to popularize the subject, facilitate the study, and advance our knowledge of the etiology and pathology of skin diseases than is possible in the present confused state of the classification. Under the present status, diagnosis is sometimes impossible, and cases have been presented in the great American Dermatological Association on which scarcely two members agreed as to their nature. What is wanted in dermatology is a better knowledge of known disease, rather than the “discovery” of unknown types.

TOXIC URINE IN
OPERATIONS ON
THE URINARY
ORGANS.

BY
REGINALD HARRISON,
F. R. C. S.

*Surgeon to the Liverpool
Royal Infirmary, and
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[Liverpool Medico-Chirurgical Journal.]

It is impossible to study a series of cases of internal urethrotomy without recognizing that, apart from their surgical interest, they may be regarded as extremely valuable physiological experiments in relation to some unworked-out problems connected with animal chemistry.

Until quite recently it may be said that certain events, following upon interference with the male urethra, proved little else than material for speculation, but little light being thrown upon what we have been accustomed to speak of somewhat vaguely as urinary fevers.

Some valuable communications have however from time to time been made in reference to this subject generally. Amongst these I would particularly mention one by my colleague, Mr. Mitchell Banks (*Edinburgh Medical Journal*, June, 1871). A careful study of this paper led me to alter materially my practice relating to the treatment of certain strictures of the urethra, and eventually brought about some modifications in my proceedings, which I venture to believe have an important bearing upon the communication I am now making. Though the conclusions I have arrived at do not entirely correspond with those contained in the paper just referred to, I have no hesitation in expressing my indebtedness to the author for placing the matter before us in such a light as to furnish material for further elaboration and suggestion.

It is now nearly fifteen years since, after practicing the operation of internal urethrotomy on a tolerably large scale much as now employed, that I practically abandoned it. I have again resorted to it within the last two years, performing it, however, in a different manner, and under circumstances distinguishing it, I believe, widely from my previous custom. For the purposes of comparison and deduction I will briefly refer to the conclusions drawn from the two different methods of performing internal urethrotomy here referred to.

The old practice of introducing some form of concealed knife within the urethra, and dividing the stricture by an incision, is almost invariably followed at an interval of somewhere about three hours with a rigor, and the subsequent development of more or less constitutional fever or pyrexia; these attacks may or may not be repeated at varying intervals; they differ widely in degree, in some instances being extremely mild, while in others they may prove severe or even fatal in a few hours. These phenomena have been explained in various ways, but none appeared to me to be satisfactory. That such symptoms have little

or nothing to do directly with the pathological state of the kidney is clear, from the fact that they have been observed and have terminated fatally in individuals whose kidneys were *sans reproach*. That the state of these organs may, under certain circumstances, determine the degree or even direction of the pyrexial attack may not be improbable, but that it can cause it or even be responsible for it is obviously opposed to observation. That such effects are due to any form of direct nerve lesion or nerve traumatism of any kind seems to me to be equally improbable. Injuries to nerves are immediately followed by such anatomical or physiological signs as the nature of the lesion is capable of affording. If a man's brain or spinal cord is damaged by a blow or a shock, he shows signs of concussion or nerve traumatism immediately upon the receipt of the injury, and not three or four hours afterward. Again, if it is a nerve lesion of the urethra which is the primary cause of the phenomena following, why do we not see urethral fever after far more extensive nerve injuries, such as lithotomy and other equally great operations on the urinary apparatus? The improbability of urethral fever after internal urethrotomy, catheterism, and such like, being due directly to nerve shock, is indicated by other collateral considerations which may be noticed. In the first place, we should expect such symptoms to follow Holt's operation for stricture just as frequently and as severely as after section of the stricture from within. On the contrary, rigors and fever are far less commonly met with after dilatation with rupture than after internal urethrotomy—tearing or stretching is considerably less productive of urinary pyrexia than incision. In the next place, the position of the wound in internal urethrotomy, relatively to the circumference of any given part of the urethra, should hardly be expected to exercise a sort of determining influence in the production of rigors and fever if the causation of these effects was a nerve lesion. Yet we find

such symptoms more frequently follow when the section is made on the floor of the urethra in preference to the roof. A dependent position of the urethral wound is more likely to be associated with fever than one not so situated. Lastly, we should hardly expect the manifestation of these symptoms to be influenced by mechanical after-treatment if damage done to the local nerves was the cause of the symptoms that followed. Yet an analysis of cases seems to show that when a catheter is worn for a time immediately after the internal urethrotomy, and bladder drainage of urine is carefully carried out, that a considerable proportion of these instances escape attacks of urethral fever. As I have already remarked, If these effects are the result of nerve lesions, how is it we do not see them following lithotomy and properly performed perineal sections for urethral stricture? In reference to the latter operation, the earlier experience of Syme only shows how easy it is to construct a perineal section which proves to be just as ready a cause for rigors and fever as any internal urethrotomy. In looking over the notes of my earlier cases of internal urethrotomy, it struck me as being worthy of remark, that neither rigors nor fever showed themselves until after micturition had been naturally practiced, or there was evidence that urine had found its way into the wounded urethra and was lodging there. This seemed to me to be opposed to the idea that nerve lesion had any thing to do with the production of rigors and fever, inasmuch as these symptoms did not show themselves until urine had first been brought into contact with the wound. Such considerations as these led me to believe that the rigors and fever which I have referred to and illustrated by what follows internal urethrotomy were symptomatic of poisoning rather than shock. I therefore determined to test this point in practice, with the view at the same time of improving the condition of certain cases of stricture which proved unamenable to other means.

Adopting the view that rigors and fever, after internal urethrotomy and such like operations, were illustrations of poisoning by material furnished directly from the urine, I resolved to perform a series of operations in suitable cases; where, though internal urethrotomy was practiced, no urine was allowed to remain in contact with the freshly-made wound. This involved an external perineal urethrotomy being done immediately after the stricture had been divided from within; in this way the urine was made to drain away just as rapidly as it was excreted. In the course of last year I published a series of cases, since added to, with comments, where the double proceeding had been practiced, my object being not only to prevent urine lodging from decomposing, and becoming absorbed by the wound, but at the same time to permanently improve the condition of the stricture. From these operations of external and internal urethrotomy combined, I soon learned how it was possible to produce rigors and fever at will after operations on the urethra. So long as the bladder drainage of urine through the external perineal wound was free and uninterrupted, there was invariably a complete absence of rigors and fever; if these conditions were not fulfilled, either by reason of a flaw in the making of the drainage wound or in the apparatus used, I could see how such complications might arise. In carrying out these observations in regard to what I would speak of as the artificial production and prevention of rigors and urethral fever, I am particularly indebted to my house-surgeons in succession, viz: Messrs. Pearson, Dawson and Collins.

At this stage of the question it seems important that we should clearly recognize the different conditions under which the surgeon has to deal with wounds which are exposed to the action or influence of urine. Running healthy urine may be regarded as absolutely innocuous. When it can make its way over a fresh cut surface, or out of a

cavity, just as fast and uninterruptedly as it flows over or in, it need cause no apprehension; on the other hand, when it is pent up, as in a wound or space, it is apt to be speedily converted into a most destructive, and, I believe, poisonous agent. How favorable are the conditions for the production of urine fever are those attending the operation by internal urethrotomy. The incision requisite for the division of the contraction necessarily paralyzes the urethra to the extent, or rather more, of the wound that has been inflicted. Hence the process of repair has to be carried on with the wound soaked in the urine that is left behind to stagnate and to undergo change after each act of micturition. This is a very different condition from the incontinent flow of urine over the glazed and granulating open wound of a lithotomy or of a perineal section. In one case it is merely contact of urine with open spaces, in the other retention, and probably chemical rearrangement, within a space bounded by a freshly-made wound. My direction and kind of work led me to believe some time ago that the urine could provide septic material of a kind which seemed to me to have been previously unappreciated in connection with the causation of urinary fever. It was with considerable interest that I perused the various communications bearing upon this subject which have been recently made by Dr. Bouchard, of Paris. On a late visit I had the pleasure of seeing many of Dr. Bouchard's experiments and tests, which he was good enough to show me at the Hospital Lariboisiere. These views relating to toxic urine, in conjunction with what I have stated as the result of my own observations in this department of practical surgery, seem to indicate tolerably clearly how poisonous normal urine may become, and how a grave complication may be added to a comparatively simple surgical procedure. I am much indebted to Dr. A. Barron for kindly making me the following digest of Dr. Bouchard's papers bearing upon this subject:

In 1882, in a note presented to the Société de Biologie, Bouchard showed that alkaloidal substances were constantly present in the urine in certain infective disorders, and that these alkaloids were of intestinal origin. That is to say, that they were substances produced in the intestinal canal by the growth of the vegetable organisms therein contained, also that they were analogous to the *ptomaines*. Subsequently these alkaloids were found to be present in normal urine. Bouchard found the same alkaloids present in the fæces, and he divided them into two groups—(a) those soluble in ether, and (b) those soluble in chloroform. He found that, when present in large quantities in the fæces, they were also present in proportionally large amount in the urine, and this applied to the ether and chloroform groups respectively. This first paper may be summarized as follows:

1. In health, alkaloids exist in the living subject.
2. These alkaloids arise in the intestinal canal through the action of putrefactive intestinal organisms.
3. The alkaloids of normal urine represent a fractional part of these intestinal alkaloids, absorbed by the intestinal mucous membrane, and excreted by the kidneys.
4. Diseases augmenting intestinal alkaloids augment *par consequence* the urinary.

In his next paper he determined the effects of normal urine on rabbits, and found that the same doses produced different effects according as the individual furnishing the urine was in health or not; also that the *toxicity* varied in different individuals, that the symptoms depended on several distinct substances. He proved by experiment that the symptoms were not due to the water of the urine, nor to the urea, uric acid, creatin, salts, or volatile matters. Further, that the alkaloids soluble in alcohol differed in their effects from those insoluble in alcohol, and that, although there might be five or six different substances present, they

could symptomatically be arranged in two groups, a convulsive and a narcotic, and he concluded that the symptoms in different cases of uræmia might be explained by these groups being present in the blood in varying proportions.

Quite recently Bouchard has brought forward some further facts with regard to the urinary alkaloids and their properties. He defines a *toxic* or a unit of poisonousness, as that amount of poison required to kill one kilogram of living matter, *e. g.*, of rabbit. The *urotoxic* is that quantity of urinary alkaloids capable of killing a rabbit weighing one kilogram. The symptoms of urinary toxæmia produced by introducing urine into the veins of a rabbit are, in the order of their occurrence—

1. Contraction of the pupil.
2. Acceleration and diminished amplitude of the respiratory movements.
3. Increase of urine.
4. Fall of temperature.
5. Diminution and finally abolition of reflexes.
6. Convulsions usually with coma, and
7. Death; the action of the heart and the electro-contraction of the muscles persisting for a time after death. The fall in the temperature is due not to increase in the loss of heat but to a diminution in heat production. The urotoxic coefficient in man is .465; in other words, for each kilogram of body-weight enough poison is excreted in twenty-four hours to kill .465 grams of living matter, or in two days and four hours a man excretes enough to kill himself.

During eight hours, if asleep, only from one quarter to one half as much poison is excreted as during the same period when awake. If the whole day be divided into three periods of eight hours each, the proportional quantities of poison excreted are: sleep, 3; early waking period, 7; late waking period, 5. The urine of the sleeping and waking hours also differs qualitatively as well as quantitatively. The alkaloid of

the urine of sleep is *convulsive*, that of the waking urine *narcotic*. The urinary poisons of the sleeping and waking hours are not only different, they are physiologically antagonistic.

Fasting increases the toxicity of the urine, probably because then the individual lives on his own tissues, and these are relatively more difficult of oxidation than the ordinary food, and are less completely oxidized. Labor greatly diminishes the toxicity of the urine, as does also the breathing of compressed air.

Opposed to the views I have advocated, that toxic urine is the cause of the rigors and pyrexia, which constitute what we are accustomed to speak of as urine fever, may be urged the following considerations: How is it that such symptoms are not produced when urine, often ammoniacal, is subcutaneously forced amongst the tissues sometimes in large quantities as in cases of stricture and sudden urinary extravasation? and secondly, how does it happen that the same symptoms have been produced in sufficient intensity to cause death within a few hours, where there is no evidence to show that the urethral walls have been actually lacerated by the catheter or bougie, which is the assigned cause of the phenomena following? The latter considerations can not fail to strike those who have perused Mr. Banks' paper, to which I have already referred. To each of these points I will briefly address myself.

The conditions attending subcutaneous urine extravasation are essentially different to those associated with the continuing contact of urine with a wound in the urethra, as in internal urethrotomy. A mixture of blood and urine seems to me to be capable of producing very different compounds from those that extravasated urine alone is likely to yield. Nor are we entirely to lay aside the consideration, that whatever *matrices morbi* may be found at the seat of the wound by the conjoined decomposition of stagnant blood and urine, its entrance into

the circulation must be favored by the contractile power of the bladder from behind.

Again, when urine is extravasated amongst the tissues, its action is that of a virulent local poison, under the influence of which the contiguous tissues are killed outright, probably before they can exercise any power of absorption. Such a conclusion seems likely from some of Menzel's experiments, where putrid and normal urines were subcutaneously injected into various parts of the body.

In reference to the second objection which may be urged, namely, that cases are recorded which have proved rapidly fatal from urinary fever, where there is no evidence that the urethra has sustained any appreciable lesion. With all deference to those who think otherwise, I submit that this is a statement which should be received with considerable reservation. Though the operator is not conscious of having inflicted a lesion on the urinary passage with an instrument he has been using, nor the patient show evidence of it immediately, this by no means implies that a structural lesion on the urethra has not been inflicted. I have frequently drawn attention to this point, and demonstrated how readily false conclusions may be drawn in reference to it.

Curiously enough, it is not as a rule the most difficult cases of catheterism which are most liable to urinary fever; in those where structural damage is inflicted, or false passages made, they are generally on the distal side of the stricture, and consequently well protected from urine infiltration or contact.

I have seen a few cases where it has been found necessary to tap the bladder with the aspiratory needle above the pubes. In some of these I have ascertained that this proceeding was not resorted to until after prolonged attempts to get in an instrument by the natural passage had been made, such efforts probably meaning that a considerable amount of damage, in a legitimate way, had been done to the urethra but in front of the

stricture. In none of these cases, where puncture of the bladder had to be subsequently performed, could I discover that the patients suffered from urinary fever. Surely in these instances the amount of shock must be greater than that caused by the slight wound of a urethrotomy knife, where rigors and fever almost invariably follow.

As in connection with the whole subject of urinary pyrexia, I can not deny that there are causes other than those proceeding from toxic urine and clinically distinguishable from them, I would take the opportunity of briefly referring to them, as I have met with them in practice.

In addition to the ordinary forms of fever, which may in some degree follow upon the infliction of any wound as in other parts of the body, as well as the extraordinary fever of the half-emptied septic-made bladder, about which we have recently heard so much in connection with catheter fever, there are two other forms of pyrexia which will in practice be met with. The one is essentially malarial, the other I would speak of as "irritative," for want of a better designation. The malarial variety is common enough in seaports. It is never seen except in persons who have had malaria, possibly at some very remote period of their lives, and is provoked by the passing of a bougie or a catheter. It comes on, as a rule, very shortly after the operation, sometimes within a few minutes; it bears no relation to the passing of urine; it is amenable to ordinary treatment by quinine, and can, as a rule, be prevented by giving the patient a third of a grain of morphia subcutaneously an hour before the instrument is passed.

Similarly, I have seen these attacks caused by the introduction of the finger up the rectum for the purpose of making a prostatic examination. I have never known febrile attacks of this description occasion any anxiety. The variety of febricula, to which I have applied the term "irritative" for want of a better description, is hardly worth

speaking of as a fever. It follows immediately upon the passing of an instrument; the patient is conscious of chilliness, and there is some elevation in temperature, which speedily declines. Precisely the same occurs sometimes when a patient passes water along the whole length of the urethra for the first time after lithotomy; this happened once to a patient of mine upon whom I had performed a prostatotomy; on the first occasion he micturated naturally. In this latter instance it was more than a rigor; it was a convulsive movement, which lasted for several minutes, and was followed by a rise in temperature. The patient subsequently told me that he believed all this was due to what he described as "the consciousness of a new sensation;" he should rather have said that it was the revival of an old one after six weeks' absence.

In making this communication I have endeavored to apply my practical experience in the operative surgery of the urinary organs in the direction of throwing some further light on certain complications, which, though hitherto grouped under one name, permit, I believe, of further differentiation.

We know a good deal relating to the chronic forms of urine poisoning; of the acute much has yet to be learned.

I desire to close this article with a paragraph taken from the address, entitled "Medicine of the Future," which was to have been delivered by Dr. Austin Flint, of New York, at the Annual Meeting of the British Medical Association in 1886, a copy of which I received just as this publication was going to press: "Analytical Chemistry carries investigation beyond the limits of microscopical observation. The latter, at the present moment, both in pathology and physiology, seems to promise most; but is it not a rational anticipation to look for future results from chemical analysis of the components of the body, in health and disease, which in brilliancy and practical utility may surpass those of the labors in this field

of investigation during the past half century? The medical semi-centenarian can recall the enthusiasm aroused by the labors of Liebig. Histology is now in the ascendant, but is it safe to predict that before the lapse of another half century there will be another era in organic chemistry, and that light will penetrate dark recesses which histology can not reach? The supreme objects of study in pathology at the present time are the discovery of micro-organisms and their natural history. But these agents it is probable are pathogenetic, not directly, but indirectly, by means of the toxical products of their activity. What are these products, and how do they give rise to the phenomena of disease? We may ask the same question of certain of the poisons introduced from without the body. How is it that fractional quantities of morphia, hyoscyamin, strychnia, aconitia, atropia, and other alkaloids produce their lethal effects? It conveys no adequate information to say that they act upon the nervous system. This is merely the statement of a fact, not an explanation. For the latter we must look to the organic chemistry of the future." Such is an anticipation by one who has been appropriately spoken of as "America's greatest physician," and whose loss to science and society is so sincerely deplored.

<p>FRACTURE OF THE RIBS.</p>	<p>The ribs seem alone neglected by inventors of ingenious devices for the maintainance of apposition of the fragments of broken bones. Whenever a bone is broken the surgeon at once sets the fragments in position, and applies some mechanical device to prevent motion until union has been established. The only treatment suggested for a broken rib is the application of a bandage around the chest so as to limit respiratory expansion, consequently broken ribs seldom unite. It has been suggested, and occasionally practised, to suture broken ribs with prepared gut.</p>
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EYE, EAR, AND THROAT.

OPHTHALMIA

NEONATORUM.

BY

J. H. SMITH, M. D.

FORT WORTH, TEXAS.

Read to the State Medical
Association of Texas,
at Dallas.

Of all the affections of the eye, there are none more rapidly fatal to vision than the one in question. Embracing, as it does, a class of patients entirely at its mercy, on account of their helplessness, its ravages are often stayed only by a collapse of the eye, and, as a consequence, vision is irretrievably lost. It seems to me that if there is a single disease of the eye that every practitioner should acquaint himself with, it is purulent conjunctivitis of infants. How often do we hear the sad story from the mother, that if she had known that her child's eyesight was threatened, she would have applied earlier for treatment. Hundreds of this class of eye troubles, that have gone on to total loss of vision, might have been saved if the danger had been recognized at once and prompt treatment instituted. Our blind asylums furnish long lists of children who lost their sight in early infancy from this trouble. Hospital clinical statistics show that twenty-five per cent of the cases of eye trouble which appear there for treatment of purulent conjunctivitis have a corneal complication of greater or less severity. Notwithstanding such a hopeless array of testimony, the management of this class of eye cases has reached a point where we almost consider an oculist culpable who allows an eye to be lost if he can see it before any corneal complication has taken place. Cases of ophthalmia neonatorum in private practice are rare; but my experience has been somewhat remarkable during the past year. During that time I have treated twenty-eight cases of purulent conjunctivitis in young children, without the loss of a single eye. In the majority of these cases, it was my good fortune to see them before there was any corneal complication.

In these cases of ulceration of the cornea,

it was superficial and easily controlled. I can give no reason for this large number of cases in so short a period, as the majority of them were in families of good standing, and where the surroundings were, to all appearances, the embodiment of as perfect hygienic arrangements as one would expect to find in any well-ordered home.

Well-defined cases of purulent conjunctivitis are readily recognized. The cause is almost universally the inoculation of the eye with the vaginal discharge of the mother during the birth of the child. It appears in from one to three days after birth, and, if occurring later, may probably be due to exposure of the eyes to strong light, draughts of cold air, or contagion from some other source. The swollen lids, with the thick, purulent discharge pouring from the lids, are characteristic of the trouble. The swelling often extends from the soft tissues of the lids to the ocular conjunctiva, producing a chemosis, which, at times, threatens the life of the cornea. As soon as the inflammation subsides sufficiently to allow eversion of the lids, we find, besides the purulent, a granular condition of the palpebral conjunctiva, which requires treatment after the purulence has been arrested.

The main thing to be feared in all of these cases is either ulceration or necrosis of the cornea—one representing a mild invasion of the cornea, and the other a purulent infiltration, resulting in a complete breaking down and destruction of the corneal tissue.

The first sign of the invasion of the cornea by the disease manifests itself either as a slight haziness of the cornea, or small point of superficial ulceration. This latter may appear at any point of the cornea, but is generally in the center. This may extend over the entire outer layer of the cornea, or may pass through the successive layers until it reaches the anterior chamber, resulting in a perforation; and, as a consequence of this, there is an escape of aqueous. If the cornea perforate near the sclero-corneal margin, there is a prolapse of the iris into

the opening; but, if it is near the center, the lens comes forward and is applied to the posterior surface of the cornea directly behind the opening in the cornea, so that when the anterior chamber fills, if it ever does, the lens is pushed back to its natural position, but not without a fibrinous deposit being left on its anterior capsule, producing anterior central capsular cataract.

The question now arises as to how we shall treat these cases. There are two essentials absolutely necessary in handling this disease—absolute cleanliness and isolation. I direct that only one person shall have the care of the little patient. I have the nurse supplied with absorbent cotton, or bits of old linen, which can be burned up after using. Every hour the lids are to be pulled open, if possible, and a solution of bichloride of mercury (1 to 3000) allowed to run through the eye until every particle of pus has been washed out. Then, every three or four hours, a solution of boracic acid, atropia and baborate of soda is dropped into the eye. I manage to see my little patient once a day, if they can not be brought to the office. After everting the lids, I brush then over with a five-grain solution of nitrate of silver, taking care that none of it reaches the cornea. I have never had occasion to exceed this strength of the nitrate in arresting the purulent discharge. This part of the treatment should not be left to the nurse, on account of her inability to properly apply it.

In many of my cases there remained behind, after the purulency had been arrested, a granular condition of the lids, of which I have before spoken. This yields readily to an occasional application of the alum crystal. The results of ulceration without perforation are either a slight opacity or dense leucoma of the cornea.

The loss of sight in an eye is not certain as long as a clear portion of the cornea is left; for we may make an iridectomy and give sufficient light to enable the patient to see how to get around.

It is astonishing sometimes how much a nebulous cornea may clear up under the stimulating use of the yellow oxide of mercury, or equal parts of oil of turpentine and olive oil, or the occasional dusting into the eye of powdered calomel.

Iridectomies should be made as early as possible, if it is found that the opacities do not clear up under the above stimulants, for the reason that there is danger of either external or internal strabismus, from the child's efforts to look around the opacity, either to the nasal or temporal side.

Let me say to you, in conclusion, to have the nurse, as soon as the infant is born, to pull open the lids and wash out the accumulated secretions, and to repeat this two or three times a day for several days after birth, and you will be rewarded by escaping ophthalmia neonatorum and its disastrous effects on the eyes of your little patients.

PRINCIPLES OF STRABOTOMY.

A careful study of the immediate and remote effects of tenotomy for the correction of squint, shows all the more clearly the necessity of taking into consideration both the power of fixation and the function of accommodation in determining when and how tenotomy shall be done.

Capsulotomy may sometimes be made to answer the purpose where the squint is not great, and the difficulty lies chiefly in the presence of diplopia. In other cases, it happens that shortening the capsule of tenon answers the purpose best. In some instances the capsule may be shortened without cutting, simply by passing sutures through in such a manner as that by tying them the capsule shall be thrown into a fold, and as the sutures incite inflammation connective tissue bands are formed along the line of the sutures, which make the fold in the capsule a permanent condition. It is manifest, however, that no operation for the correction of squint should ever be attempted without first determining the state of re-

fraction, and the effect designed in the performance of the operation.

The whole subject of operative interference in cases of squint seems much in need of more careful and extended study. All the nonsense about the sufficiency of simple tenotomy, which one sees in the textbooks on surgery, and in the essays of recent writers in periodical literature, is calculated to mislead both the inexperienced practitioner and the public.

It is presumed but few may be found bold enough to attempt to cast doubts upon the now well established fact, that nearly all squint, in whatever form, originates either in some error of refraction, or is perpetuated by it. Any attempt, therefore, to divest the operations designed to correct squint from the complicating influences of diffraction, as well as accommodative and muscular asthenopia must, *per necessitatem*, lead rather to confusion by increasing the chances of failure, without, at the same time, affording any explanation of such failure.

If the division of a tendon is decided upon, the operation should be done in such a manner as not to separate the fasciculi of the tendon by rudely puncturing with the end of the blunt hook, which is introduced for the purpose of raising the tendon to facilitate division at its scleral attachment. Where the tendon has been rudely lacerated in this way, and the division has not been symmetrically done, it is likely that some fasciculi will retract more than others, and that the point of union which takes place by adhesion will not be in the nature of a line perpendicular or horizontal to the surface of the schlera, but in the nature of a broad, irregular base of attachment, by the adhesion extending from the anterior margin of the divided end of the tendon to the posterior boundary of the retracted part.

This, of course, well nigh does away with all law of muscular contraction as to the harmonious positions of the globes, and may greatly complicate the already existing state of confusion for the relief of which the

operation was originally designed. It may not be, therefore, too strongly insisted upon, that all attempts at correcting squint, in any form, should at the same time include a consideration of the refraction, accommodation, and muscular disturbances.

REFLEX

OPHTHALMITIS.

The experience of ophthalmic surgeons in the treatment of penetrating wounds of the ciliary region and of inflammation of the ciliary bodies, whether primarily or secondarily established, abundantly demonstrates the almost constant tendency to the development of cyclitis, soon followed by choroido-retinitis in the fellow eye. It is easily shown that wounding the ciliary nerves, or alterations of their structure in the course of inflammatory processes, constitute the foundation for reflex inflammation in the fellow eye.

An eye suffering injury from traumatism, or inflammatory action due to other causes, kindling inflammation in the ciliary nerves, must, of course, impair both the nutrition and all the functions of these nerves as far back as the ciliary ganglion; from which branches of the cavernous plexus of the ganglionic system are found freely communicating with both orbits. The cavernous plexus, supplying both ciliary ganglia, is unquestionably the medium through which irritation in the ciliary system of one eye is reflected to some part of the territorial distribution of corresponding portions of that system in the other eye.

In view of these facts, and of the further fact that the ciliary nerves once entering the scleral wall must all suffer, both from increase of tension and direct pathological change; so that it is rare to find a circumscribed injury to the ciliary system which does not become general within the entire globe of the affected eye. The iris being supplied with nerves and blood-vessels, in part at least, through the ciliary body, may become the seat of such serious injury as to cause reflex irritation in the fellow eye.

OBSTETRICS AND GYNÆCOLOGY.

STERILITY.

BY

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Kentucky School
of Medicine.*[Read to the Louisville Med-
ical Society, Dec. 23,
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ALLEN H. KELCH, M. D.

Since the happiness of married life often depends on having children, as also the perpetuation of names and families, and the descent of property, and permanency of dynasties and governments, the physician

should have a practical knowledge of the subjects relating to child-bearing. Sterility is rapidly increasing in all highly civilized countries, and in Great Britain there are about five hundred thousand married women who are childless. But sterility can not be practically understood without a clear idea of the physiology of reproduction. All the factors concerned in the process of conception must operate in harmony, the woman producing normal ovules and the man normal spermatozoa. These products must unite in or near the Fallopian tubes, and there must be no abnormal condition that will destroy their vitality before or after they come in contact, nor after fixation to the uterine mucous membrane.

As many women potentially fertile are practically sterile, as a result of the prevention of conception and the destruction of unborn life, I will consider briefly some of the moral obliquities of woman in this connection.

These practices, observed in all stations of society, are sins against nature, morals, religion, and State, and may imperil the independent existence of a people. The moral philosopher can scarcely distinguish between the sin of preventing conception and that of producing abortion; and there is probably nothing about which the moral nature of woman is so depraved as that which concerns her duty in child-bearing. She will determinedly continue in habits destructive of the sanctity of married life,

and of the mental and physical health of herself and husband. She is often a respectable member of society, and of church, and will reason intelligently upon other subjects, but is deaf to all arguments upon this. Sacred history is replete with proof that the evil practice of preventing conception and of causing abortion has been condemned from the earliest history of the world, and the Old and New Testaments are full of evidence of the will of the Creator upon this subject and the punishment of its violation. God's command to our first parents, "Be fruitful and multiply, and replenish the earth," has been repeated to successive generations by divine authority; and the severe reproach of the barren woman in ancient times caused the Hebrew woman to cry in agony for a son. But the mother of our *modern civilization* often cries in agony because she is, perchance, compelled to bear a child.

All means of prevention, except a laudable abstinence, is prejudicial to the mental and physical health of husband and wife, and the moral effect of withdrawal before emission is nearly identical with that of masturbation, and the physical disturbance may be greater, as the vasa differentia remain partially filled, producing an irritation that causes a more frequent desire for sexual connection than is healthful. When the semen is not deposited in the vagina, and the connection is imperfect or unfinished, the active congestion of the female pelvic organs finally become passive, resulting in engorgement, hyperplasia, displacement, etc., entailing various local and reflex disturbances, or even insanity. Women in *so-called* refined, religious, and cultivated society, being controlled by a desire for social pleasure, and for position and wealth for their children, practice prevention more than women in the obscure walks of life. Their daughters are taught nothing about the anatomy or the physiology of their generative organs, but are trained to abhor offspring, and are told how to avoid becoming

pregnant. The higher education or *brain-cramming* of girls now-a-days, with the absence of exercise and other hygienic measures, and the reading of sensational or love novels, destroy their power to bear well-developed and healthy children, or to supply them with enough nutritious milk for the natural period.

As woman ascends in the scale of education and refinement, child-bearing becomes more difficult. She is more sensitive to pain, and bears children with greater cranial development. Her mode of dress distorts or displaces her thoracic, abdominal, and pelvic viscera, and so weakens the abdominal muscles that the auxiliary forces in parturition are very much impaired.

In the British peerage there is one sterile woman in six and a half marriages, while there is but one sterile woman in ten marriages in the agricultural and seafaring people. In one hundred marriages in the British peerage four hundred and fourteen children were born, while in one hundred marriages, not heiresses, there were born six hundred and twenty-four children.

Sterility may be absolute or relative, congenital or acquired. In absolute or congenital sterility, the ovule is not impregnated, or if impregnated conception does not follow, the ovule being destroyed in the tubes or uterus; or conception may occur, but the woman aborts before the child is viable. In relative or acquired sterility, the woman has had one or more living children, but in number not according to the duration of married life. A woman may marry, successively, two or more men, and have children by only one of them; or a man may marry two or more childless widows, and have children by each of them. This is sterility from incompatibility, these women being potentially fertile. One-child sterility exists in one out of thirteen marriages. The average time from marriage to the birth of the first child is seventeen months, and between the birth of children nineteen months, and women, upon an av-

erage, bear children from twenty-five to thirty-eight years of age—less than fifteen years. As one in thirteen women bear their first child after having been married three years, no woman should be considered sterile until the fourth year of married life.

Sterility may result from mechanical obstruction, from uterine or pelvic diseases, or from constitutional disturbances, or from some defect in the husband. The spermatozoa may be prevented from entering into the uterus by any congenital or acquired defect that interferes with sexual connection, such as imperforate hymen, vaginismus, atresia vulvæ, atresia vaginæ, etc., or by constriction or obliteration by stenoses or flexure of any part of the cervical canal, or by an elongated cervix. The vitality of the spermatozoa may be destroyed by secretions from diseased mucous membranes of the vagina, cervical canal or uterus, but the most poisonous secretions result from glandular, cervical endometritis, and from latent gonorrhea. Tumors connected to the uterus, and in the parenchyma of the uterus, or any disease of the mucous membrane and walls of the uterus, may not only prevent the entrance of spermatozoa and ovules into the womb, but also prevent or destroy fixation or conception. In the absence of ovaries, there can be no ovules; but enfeebled health, constitutional diseases, profound nervous shock, ovarian incapacity, diseases in or about the ovaries or tubes—such as oophoritis, cystic, sarcomatous, cancerous and inflammatory degeneration of the ovaries—or sapinitis, peritonitis, and cellulitis, may prevent the production of perfect ovules. The entrance of the ovules into the uterus may be interfered with by displacement, detachment, or absence of the Fallopian tubes; or by any condition that obstructs, contracts, or obliterates their cavity. The so-called spasmodic dysmenorrhea may cause sterility, since of three hundred and thirty-two women absolutely sterile, one hundred and thirty-nine suffered from this trouble. Obesity, confinement,

sedentary habits, changes in climate, and inter-breeding are causes of absolute and relative sterility. Absolute sterility, "sterility not absolute," and relative sterility may result from syphilis in husband or wife. Masturbation or over-sexual indulgence may render husband or wife incapable of producing offspring.

In the absence of some positive condition in the woman that will prevent conception, she should not be considered sterile until we know that the semen of the husband contains living and healthy spermatozoa. The general belief that sterility is nearly always due to some defect in the woman is erroneous, and the statistics of Gross show that sterility is found in man on an average of one case in six, and that in eighty-three cases of bilateral epididymitis only eight afterward had living spermatozoa in the semen, due probably to obstruction in the vasa differentia; also that ninety per cent of sterile women were married to men who have had gonorrhea before or after marriage. A man may be able to secrete spermatozoa, but they are prevented entering the seminal fluid by some congenital or acquired obstruction.

Fertile women usually have pleasure in sexual connection, and may have desire; but women may conceive who have neither desire nor pleasure, while others who have desire and intense pleasure remain sterile.

The inability of the ovaries to produce healthy ovules and the obliteration of the Fallopian tubes are conditions that may be prevented, but can not be remedied, though there are cases of sterility that may be cured. As the ratio of relative sterility and of abortion is less in women who marry several years after puberty, we should advise against too early marriages. Fecundity and fertility are greater in women who have completed their physical and mental development, and as adolescence usually continues until about the age of twenty years, it is best to defer marriage until after that time. If the woman's blood is impoverished or her nerv-

ous system and nutritive functions are deranged, and her general health degraded, prescribe out-door exercise, nourishing, and easily digested diet, tonics, constructives, and alteratives. In neurasthenic women this treatment may sometimes be preceded by seclusion, massage, electricity, milk diet, etc., which can not be successfully practiced until the patient be separated from her immediate family and home surroundings and influences.

Where syphilis or any constitutional disease causes sterility, treat these conditions *persistently*; if the woman suffers from obesity, reduce her flesh, and if she is constipated, with intestinal indigestion or catarrh, give hydrastin and belladonna as a tonic to the mucous membranes, podophylin to stimulate the portal circulation, nuxvomica as a tonic to the intestinal muscular fibres, and aloes as a stimulant and tonic to the pelvic vessels to remove passive congestion.

In chronic engorgement of the pelvic organs and hyperplasia of the uterus, with reflex nervous disturbances, or menstrual derangements, the Aletris Cordial and the wine of the American ash are indicated. Remove conditions that prevent complete or perfect sexual connection, and cure diseases of the generative organs that cause discharges poisonous to the spermatozoa, or that in any way induce sterility. In chronic inflammation of the ovaries, and of the cellular and peritoneal tissues of the pelvis, which interferes with the development of the ovules, or prevents them from entering the uterus, use copious vaginal injections of hot water, and apply counter irritation over the inguinal regions, with croton oil, cantharides, or iodine, to promote absorption of inflammatory products, and use the galvanic current for its electriolytic effect.

In laceration of the cervix; with intracervical tissue everted and eroded, or in laceration which causes local or reflex nervous irritation, perform trachelorrhaphy; and if in laceration of the perineum, the

semen is not retained in the vagina, perineorrhaphy is indicated. Where the retracile force of an abnormally short vagina expels the semen immediately after coitus, the husband should be instructed not to introduce the penis to its full depth, and thus prevent the vagina being put upon the stretch. Vaginal fistules should be closed; and in retroversions and retroflexions of the uterus, success may follow the proper use of a Hodge-shaped or a ring pessary, supplemented by putting the woman in the genu-pectoral position, and forcing up the pelvic viscera by atmospheric pressure. This assists the pessary in removing passive congestion, and sometimes corrects the displacement. Conception may follow the amputation of about one quarter of an inch of an elongated or conoid cervix. This operation is seldom indicated, and is considered dangerous; but the complications and objections are greatly lessened by using my *Serrated Scissors* and my *Compound Tenaculum*. In these operations it is desirable to unite the intracervical and the extracervical mucous membranes, so as to prevent contraction of the os, or the absorption of septic matter. But if the spermatozoa are prevented from entering the uterus by contraction or flexure of the cervical canal, rapid dilatation is the correct treatment; and I enter my protest against incisions and tents, as recommended by many of the recognized authorities. Such treatment is unscientific, is dangerous, and is not successful. Rapid dilatation, if carefully done, is comparatively free from danger, and generally removes the obstruction, and straightens, shortens, and alters the shape of the cervix. The operation should not be performed immediately before or immediately after menstruation, nor while there are evidences of pelvic inflammation. Give the patient an injection of morphia and atropia just before the operation, and when she is anesthetized, dilate the cervix from three quarters of an inch to one inch and a quarter. I

prefer my dilator to Goodell's modification of Ellenger's. The superiority claimed for the latter is that the blades being parallel, it dilates all parts of the canal equally. This is true in theory only, for the elasticity or yielding of the blade is greatest at the ends, while the greatest resistance to be overcome is in the upper part of the cervix, so that when the external os is dilated one inch and an eighth, the internal os is dilated not more than an inch. The reverse should be true, for the part that most needs to be acted upon is generally near the uterine body. My dilator is more powerful, less complicated, and less expensive, and will not slip out of the uterus so easily when expanding; and when it dilates the external os seven eighths of an inch, the internal os will be open about one inch.

DISCUSSION.

Dr. J. G. Cecil said: The gentleman has covered the field so well that he leaves little to be said on the subject. Whatever may be said of dilatation as a means of overcoming sterility it is now recognized as a valuable means of relief in dysmenorrhea, especially in those cases recognized as obstructive. In these it is so evidently and rationally a proper procedure that the results could not be far different from what might be expected; they are such as have proven entirely satisfactory, and to have established dilation as a specific for obstructive dysmenorrhea.

Dr. Allen Kelch said: I regret that the reader has given us no statistics of the results of his operations for the relief of sterility by rapid dilatation. I confess myself to have been delighted when I read the articles of Dr. Goodell, of Philadelphia, in the *Medical and Surgical Reporter* and *The Medical Times* on Rapid Dilatation as a Means of Overcoming Sterility and Dysmenorrhea. The operation seemed so rational in cases of stenosis, and was detailed as being so easy of performance and so free from possible harm, that I, for one, was charmed with the

new light on the subject. I began at once to put the theory into practice.

Mrs. S., aged thirty, had suffered from dysmenorrhea since her menstruation began at fifteen. She was the subject of many of the neurotic phenomena belonging to this large class of cases; in short, she had long been regarded by her friends and former attendants as incurably hysterical. Her weight was ninety-one pounds. She was in the fourth year of married life, never having been pregnant.

An examination revealed a conical though not particularly elongated cervix, and considerable leucorrheal discharge. I rapidly dilated the cervix, ordered hot water injections, and constitutional medication to overcome the inflammation, and waited for results. The leucorrhea ceased and dysmenorrhea became a matter to be remembered only. She rapidly gained flesh and strength; is now almost entirely free from neurotic disturbances, and weighs 116 pounds. Her husband, a robust man of forty, informed me he had never been the subject of venereal disease. He consulted me about six months since concerning a simple sebaceous pimple near the root of the penis, in the examination of which it became necessary to handle his testicles. They are about as large as the last joint of my little finger. I have, therefore, resigned my engagement to deliver that woman until her husband dies and she marries a man.

Mrs. A., a hearty and comparatively healthy young married lady, the wife of an equally hearty, strong young man, saw me on account of dysmenorrhea and sterility. Examination showed a pin-hole os, and, of course, after two years of married life without becoming pregnant she was anxious. I was again sanguine. I dilated the cervix to an inch, under chloroform, and awaited the result. Dysmenorrhea and leucorrhea were greatly relieved. Time passed, but no child chirruped on the hearth of that household. Last March they concluded to try it over again under ether. Alarming symptoms

coming on, chloroform was again resorted to, but with such alarming effects upon the pulse that the operation was postponed.

Later I employed cocaine and dilated in a few days to an inch and a quarter, without any pain whatever. When her husband called to pay his bill I again asked him if he had been the subject of venereal disease and to what extent. He confessed to having had a slight gonorrhea before he was married, but never any thing else. He bore none of the signs of syphilis. I obtained his promise, however, that in case his wife failed to conceive I should have a specimen of his semen for examination. I am still waiting both for the pregnancy and the semen.

Mrs. M. presented similar conditions and was equally fortunate with those just mentioned, but no more so. I believe the sterility in this family is due to the husband, for he confessed to having been a drunkard.

Mrs. R., a young German woman, four months married to a beardless man, with a cracked voice, was very solicitous regarding her prospects for a family. Her husband, also, on account of slanderous remarks concerning his conduct before he married the woman, was very desirous that she should conceive, that he might be exonerated of the charge that he had ruined himself. Mrs. R. was the subject of dysmenorrhea, otherwise I could see no indication for operation. Indeed, Dr. Cartledge, who administered the chloroform, suggested that we exchange subjects and dilate the husband rather than the wife. However, at their solicitation, I dilated immediately after her menstruation on December 7, 1885, and instructed her husband to have connection with her just as soon as she could bear it. She must have been pregnant when I did the operation, or made an heroic martyr of herself, for she never menstruated again. On September 5, last, I delivered her of a fine girl baby, which I have no doubt you will all agree with me is the best evidence of the necessity and the effectiveness of this

operation in overcoming sterility. Some eight or ten others in the order in which they came under my charge might be detailed, but it would be a repetition of the cases already mentioned. I have done the operation for the relief of dysmenorrhea in young women, when I found it resisting every other means. I think its success justifies its performance, though I never advise it to the parents, simply informing them of the nature of the procedure, and leaving it for them to say if it shall be done or not, as they feel inclined, but I never propose it to young women.

Dr. Preston B. Scott said: The paper just read is commendable as a comprehensive and terse exposition of the subject. Much credit is due the reader for his earnest and vigorous effort in the way of instrumental relief. Yet, I must say, as I grow older in the general practice, I become less enthusiastic over new remedies, and the novel surgical procedures of some specialists. There is no class of medical men more sanguine in their work, and I believe I can correctly say, less agreed in their work than gynecologists. Their efforts at surgical relief are often carried so far as to lead to hazardous and unwarrantable procedures. The dilator presented here, while ingenious and meaning well, has a size and leverage of power capable of much harm.

On the question of relief of sterility and dysmenorrhea, gynecologists are far from agreed. In two great centers, as Philadelphia and New York, rapid dilatation is largely pursued in the former, while in the latter there is an equally large class who are earnest advocates of the several methods of slow dilatation. The serrated scissors presented by my friend is ingenious and efficient; yet my own observation sustains him in saying that amputation of elongated necks of the womb for barrenness has been resorted to when other measures would probably have been as effective. The point taken by the reader that sterility is too largely due to interrupted and intercepted

coition, enforced barrenness, is well taken, and should be met squarely in the face. It becomes constantly to the practitioner a question of two evils, and of the unavoidable toleration of evil. When I find that neither the anathema of the church nor cogent professional counsel will prevail, I am often led then to so far acquiesce as to advise tepid ablutions as the least capable of physical harm.

The speaker who has just preceded me favors dilatation for the relief of dysmenorrhea. While I concur that it is applicable and capable in a limited class of married subjects of sterility and dysmenorrhea, I insist that, vast numbers of the cases of painful menstruation belong to the unmarried, and that naturally the field of usefulness of the dilator is a very narrow one. The trespass on the law of modesty, and the shock to the purity of young womanhood, should put the brakes on enthusiastic surgical interference, and enforce continued trust in general palliative measures of relief, which I am yet convinced are capable of much gross good.

So another speaker, who says young girls should be so taught hygiene in the schools and otherwise educated so as to be better prepared to submit more readily to the future possibilities of instrumentation, I will only say, God forbid.

I regret I am called away so that I can not reply more at length to such charges against the modesty and purity of girlhood. When another member rises and says that elongation of the neck is often due to masturbation, I will only reply by saying it is untrue in its impossibility. When he further says that one half of the young girls are more or less subjects of secret abuse, I will say in due respect to his personal truth and honesty, it is not the fact. Such perversion of nature does not, can not exist.

Dr. C. R. Skinner said: I have performed this operation but once for the relief of dysmenorrhea, and that with perfect success. I have not learned whether she has ever become pregnant. In regard to overcoming

the natural modesty of women in these cases, it would not be so difficult if women were better educated—if they knew more about their generative organs and their proper functions, they would be better able to avoid the causes of dysmenorrhea and sterility.

Dr. J. W. Irwin said: I rise to say a word in reference to the paper. The failure to give statistics on the results of amputation of the cervix is unfortunate to say the least. It seems to me many of the cases referred to are curable without dilatation. Rest, change of scene, and habits of life, are all agents that give good results in many cases of dysmenorrhea, and even in sterility. As to educating young ladies in the schools up to the point that they become willing to expose themselves to every man or woman who chooses to make an examination of them, it would be morally, physically, socially, and religiously wrong. They can, of course, be educated up to the point that they, like the Italian women, scarcely regard this a secret part of the body. The great majority of young women learn very early in life that they have a womb. I think, sir, young ladies should be encouraged in this modesty in preserving this part of the body sacred to the duties which it is intended by nature to perform.

Many of these young girls derive their difficulties of menstruation from improper clothing, and from vicious habits of reading. There is scarcely an advertising tract of a patent medicine that does not contain a diagram of the pelvic organs, and these young women develop their curiosity very early in life concerning the nature of their hidden possession. I think their education in this direction should be held in abeyance, if possible, instead of fostered as doctor C. advocates.

Dilatation can relieve but for a short time, as the natural tendency of the parts is to return to their original shape. As to amputation, what do we hear? Conflicting opinions from both sides of the Atlantic.

One advocates it as a cure for sterility, another says it does no good. Perhaps in some of the cases conception would have taken place without it. In New York some of the best men have abandoned the operation of amputation, for the reason that the cervix reproduces itself. Is it not reasonable to suppose that the return to the *status quo ante* is quicker after rapid dilatation? Emmet says conception must take place in eighteen months if at all, or the conditions removed by operation will have been re-established.

We hear much of the intra-uterine stem pessary, etc. It is not reasonable to suppose that an artificially produced irritation will give relief from sterility, when we know chronic inflammations produce it. Many influences may operate to produce sterility. If the ovaries are at fault, improve the blood and nervous condition. If the womb is at fault, perhaps a local, soothing application will relieve it. Statistics to-day, however, are not in favor of operative procedures in the treatment of sterility in women.

Dr. Jno. T. Keegan said: When women come to me and say they are sterile, I tell them that so far as I am concerned they will stay so. If they have got any sense you can not find out any thing from them, and if they have not you can not find out any more. As for doing this operation of dilatation it is nothing at all remarkable. You can stretch the neck of the womb to almost any desired extent with almost any thing that you may introduce. This thing of the instruments, as to whether this man's instrument, or this man's modification of some other man's instrument is the best is all a humbug. A common sound will dilate the cervix. Again, as to this thing of waiting for years, that is all nonsense. A man and a woman ought to do any thing in six months. He had seen case after case where women had lied most outrageously about menorrhagia in order to secure an examination. The best way to deal with

them, he thought, was to tell them to come back again the next time they menstruated. In all such cases they never return.

Dr. Edward von Donhoff said: It occurred to me, when Dr. Skinner was on the floor, that perhaps something might be said which would relieve him of the onus which seems to attach to his suggestion. I know it to be a fact, from professional experience, that young ladies, particularly of the upper class, are very much under-educated with reference to the physiology of their being, and especially with reference to hygiene. They know nothing as to keeping their bodies in proper condition; especially is this true with reference to constipation. I doubt if there are twenty girls out of all who attend the Louisville High School who have a daily evacuation from their bowels. They are ashamed to be seen going to the water closets to empty their bladders, and it is a fact that most of these subjects of dysmenorrhea are primarily the subjects of chronic constipation. Every avenue of health is invaded perniciously, the digestive and brain functions are impaired, and the powers of physical and mental endurance are vitiated or destroyed. Finally she goes to the gynecologist a simpering wreck. Are our girls of the nineteenth century to be turned loose upon the world simpering, uneducated angels as it were? The interpretation of Dr. Scott's ideas of propriety leads to no other conclusion.

If so, these questions will become matters of interest, not to physicians alone, but to the public at large. If girls are educated, to the extent at least that they shall have regular evacuations from the bowels, that they shall take regular meals, wear proper apparel, and protect themselves against inclement weather. If they are taught that at about a certain age they are to become the subjects of physiological phenomena, which renders it necessary they shall take particular care of themselves, will they be harmed by such knowledge? Will they be less modest because of it? A

woman is never less modest because she is intelligent. It is the half educated woman who is the prostitute, or the loose woman in society.

So far as sterility is concerned it is either of constitutional origin, or it is propagated by local functional derangements, or it is of local origin, and complicated by mechanical obstruction. It is not wise, it is certainly not scientific, to simply treat a case of dysmenorrhea or sterility with emmenagogues or shot-gun perscriptions which are, in the language of Dr. Irwin and Dr. Scott, screens to shield their disinclination to shock the modesty of women. Certainly the first consideration of every right minded woman, when she consults her physician, is health above every thing else. The first duty of the physician is to inquire into the cause that destroyed or deleteriously affects it, rigidly, unflinchingly; and no woman, no matter how modest, will flinch from a direct question, even from a beardless boy as a physician, provided her elders have sufficient confidence in his ability to employ him.

The constitutional causes of sterility are the most difficult to remove, because they are the result of long continued nervous impressions. The local are remediable or not, according to their location, extent, and cause.

To return for a moment to the subject of education, there are very few elongated cervixes not due to excessive coitus or masturbation. Is it not a fact that girls masturbate as much as boys [cries of no! no! by Dr. Scott]? there are plenty of boys who have never masturbated; there are a great many girls who have not masturbated, yet the neurotic evidences are not wanting in both. When you fail to educate girls you allow a condition of irritation to arise that induces masturbation. Let such a woman as that use warm or cold injections, if you please, give her rest, keep her bowels open, and keep her from indulging herself too much, and give her at the same time the

proper amount of the proper kind of exercise, and that elongated neck will melt down. I, probably, never will have use for any thing to cut off the cervix, except in those instances where there is genuine static hyperplasia with elongation. There it might be proper to cut off a small portion to invite such changes in nutrition as to cause absorption of the plastic matters. A little diaphragmatic sort of stricture sometimes obstructs the internal os, and I can conceive how this would be easily remedied by dilatation.

As to sterility in the male it is a fact, brought out by one of our greatest authors, Samuel W. Gross, that the vast majority of humanity are either the remote or the immediate sufferers from venereal contamination. It is a fact that when the seminal cell contains any thing at all abnormal it is dead; it can no longer fructify. I doubt whether a man with a gonorrhea can impregnate a woman; that he can with a gleet I know from observation.

To sum up, I believe Dr. Skinner's position, when properly looked upon, is possibly the wisest principle set forward this evening. Were I the father of a family of daughters, I should certainly insist on the mother or their properly appointed teachers to tell them the importance to be attached to the regularity of their functions, and the proper use and intention of the organs bestowed upon them by Dame Nature. Having that knowledge they no more grow immodest than men deeply learned grow arrogant and egotistical.

Dr. P. B. Scott said: In regard to educating our girls in this direction I have only one answer, and that is, GOD FORBID. In regard to the assertion that 'masturbation is as common in the female as in the male,' or even common, it is not true. In regard to dilatation, I can understand how in some cases it might do good, but there ought to be some restraint laid upon the tendency to instrumentation in these cases. It ought to be the rule to determine whether all other

causes of sterility are first excluded before resorting to surgery.

Dr. Skinner said: He regretted his remarks had been so brief as to allow the misconstruction that had been placed upon them. He was no more desirous than any of the other gentlemen present that women should be educated up to the point of submitting to an examination by every one who chose to make it. Their education at present is too rapid in vicious or rather pernicious habits. This should be supplanted by a true knowledge of the sacred purposes to which their generative organs should be consecrated, viz: to the reproduction of the species, and not to the enjoyment of the mere orgasm.

Dr. Dudley S. Reynolds said: He thought the discussion was taking too much latitude. He thought it unwise to conclude without some positive proof that the cervical canal which gave exit to the menstrual flux could not as readily admit the liquor seminis. He regarded it pretty well proven that forcible dilatation is a valuable agent in the treatment of certain chronic forms of dysmenorrhea. But it is probably the same principle as that which secures relief in certain rectal diseases by forcible dilatation of the sphincter. He doubts the propriety of such a proceeding in any woman whose vagina has not been previously dilated, and thinks the published reports have not shown the necessity of dilation in unmarried subjects.

As to the cause of sterility, it would seem too little attention is paid to the previous loss of epithelium from the cervical canal. It is thought by many that endo-metritis of a purulent nature, or the loss of the normal lining of the cervix, whether from caustics or otherwise, uniformly entails sterility. Surely dilatation would be out of place here. He regrets none of the speakers have defined with sufficient clearness the proper indications for the operation, and has no doubt Dr. Wathen's instruments will often fail to meet the expectations of those who try them for the relief of sterility.

Dr. Wm. Bailey said: That he thought it of paramount importance that our young women should be taught anatomy, physiology, and hygiene, yet he would not be in favor of having placed conspicuously on the walls of the school-room two diagrams, one representing the female pelvis and organs of generation, showing how that contraction of the outlet from the uterus might be productive of sterility or dysmenorrhea, and another showing the deformity corrected with Wathen's dilator in situ.

He does not think that the criticisms of the paper have been altogether just, as the gentleman gave us a number of causes of sterility, many of which have not even been referred to in the discussion.

It may be that the attention of the members has been especially directed to one, because this instrument, devised for its relief, has been exhibited.

It is not reasonable to expect the cure of sterility by this dilator when it is due to any one of the many causes other than constriction of the os uteri or neck.

In proof of the fact that dilatation is efficient after the use of this instrument, we have the almost universal testimony that the obstructive dysmenorrhea which usually accompanies this condition is greatly and often permanently relieved.

No doubt exists but that suitable cases are cured by this means.

In conclusion Dr. Wathen said: I thank the Society for the interest manifested in this subject. In regard to amputation of the cervix and dilatation, I alluded to them only as proper procedures to overcome obstructions not otherwise relieved. I do not often amputate the cervix, though I have on a number of occasions done so, and had the operations followed by most gratifying results. I do not recollect an instance where I have regretted that I had amputated the cervix.

It is, of course, not probable that the operation would be often practiced, but in married women who are sterile it may be in-

dicated, and should be taken advantage of. In the usual hyperplastic elongated cervix there is no treatment so consistently and rationally followed by good results as amputation of a small portion to stimulate absorption, or so-called involution. It is not uncommon in such cases to see a womb measuring four or five inches in depth rendered in three weeks two and one half inches in depth after amputating one quarter of an inch. Dilatation has been regarded as a proper procedure to overcome obstruction since long before we had an existence. It would be as reasonable to object to the dilatation of a stricture of the male urethra on the ground of elasticity, or tendency to resume former conditions, or on the ground of temporary relief, as to object to dilatation of an obstructed uterine neck.

In regard to the education of girls, it is a known fact that immorality among women bears a direct relation to ignorance in all respects. Wherever you find educated women, women educated in all things relating to themselves, their distinctive organs included, there you find them most modest, least likely to degrade themselves by prostitution. I gave no statistics illustrating the results of dilating the cervix and amputation for the reason that I could not do so without making my paper too long; but most recognized authorities give instances that prove the legitimacy of the operation. I have read nearly every thing that Dr. Emmet has written, and remember that he is opposed to the amputation of the cervix uteri, but I can not recall any statement of his to the effect that when the cervix is removed it reproduces itself. The part removed can never be reproduced, but it is possible that pathological changes may again increase the size and length of the entire uterus, which is probably the idea Dr. Irwin intended to convey. Dr. Emmet is a good authority on most subjects in gynecology, but I beg to differ from him in his teachings on this subject. I am sorry that other parts of the paper were not discussed.

PATHOLOGY AND HYGIENE.

ULCERATIVE

ENDOCARDITIS.

Dr. T. Mitchell Prudden contributes to the *American Jour-*

nal of the Medical Sciences an exceedingly valuable article on Endocarditis. At the conclusion of a recital of his experimental labors, Dr. Prudden says :

Bacteria are frequent in a certain proportion of cases of acute ulcerative endocarditis in the cardiac, and, when these exist, in the peripheral lesions. These bacteria are small and of spheroidal form in almost all of the cases thus far described ; but in a few cases the presence of bacilli has been noted. There are cases of ulcerative endocarditis with extensive destruction of tissue and large formation of thrombi, in which the lesions are entirely free from bacteria. In these cases, as a rule, the endocardium is the seat of an old inflammatory process and the peripheral embolisms, infarctions, etc., do not contain bacteria.

In many cases of acute ulcerative endocarditis associated with bacteria the valves and endocardium are also the seat of old inflammation.

The destructive process and formation of thrombi in the heart valve and endocardium may be as marked and extensive in the cases in which the bacteria are absent as in those in which they are present ; but in the latter class of cases the embolic lesions which are apt to be developed are of an infectious nature, and the general course of the disease is apt to bear the stamp of an acute infectious disorder.

These two classes of cases may be appropriately designated as *ulcerative* or *acute ulcerative endocarditis*, but those in which the bacteria are present should be distinguished by the term *malignant bacterial* or *mycotic ulcerative endocarditis*.

The gross appearance of the valvular lesion does not always or usually enable us to distinguish between these two forms of disease. Bacteria are sometimes present in

cases of acute vegetative endocarditis, but in the lesions of chronic proliferative endocarditis they do not appear to occur at all.

The bacteria which are present in the cardiac and peripheral lesions in cases of malignant ulcerative endocarditis are the causative factors in the disease. This has been shown by three independent observers, who have isolated the same species of bacteria from cases of this disease in man ; obtained them in quantity in pure cultures ; induced in rabbits by their inoculation, under special conditions, lesions of the endocardium as nearly identical with those in man as the nature of animal experimentation will permit ; and finally determined the presence of the same bacteria in the cardiac and peripheral lesions of the operated animals.

The bacteria apparently produce the cardiac lesions by lodgement on the surface of the valves and endocardium, when the latter are rendered vulnerable to their action either by mechanical or chemical injury ; or by the presence of old inflammatory alterations ; or by conditions unknown to us.

Bacterial embolism of blood-vessels of the heart valves is apparently not of frequent occurrence, as was formerly believed.

The only bacteria which have been thus far absolutely identified as occurring in the lesions of malignant ulcerative endocarditis in man are *Streptococcus pyogenes* and *Staphylococcus pyogenes aureus*. This identification has been made in six cases.

It has been demonstrated that other species of bacteria than those above mentioned are capable of causing similar lesions in rabbits under similar experimental conditions.

The relations of malignant ulcerative endocarditis to the acute diseases such as pneumonia, typhoid fever, etc., in connection with which it is apt to occur, still remain obscure, and in the light of the new methods are almost entirely unstudied. It is, however, noteworthy that in all the cases of this disease thus far fully studied by biological methods, the bacteria identified are

those which play so important a rôle in pyæmia and the inflammatory processes in general. In these cases the disease may be regarded as one of the local lesions of pyæmia.

The great frequency with which the acute ulcerative disease is engrafted upon an old endocardial lesion would seem to indicate that in the human subject the absence of endothelium, or the roughness of the surface of the thickened endocardium, affords conditions of predisposition for the lodgement, and vulnerability toward the incursions of the bacteria, where once they gain access to the blood, similar to those produced experimentally in the rabbit by mechanical or chemical means.

To seek for the nature of the acquired vulnerability in a diminished vitality of the endothelial cells whereby they become unable to cope successfully with the ptomaine-producing bacteria which find lodgement upon or near them, would lead us in a direction toward which many experimental data point; but it is perhaps better, for the present, to remain on what seems to be fully established ground. The injection of *Staphylococcus pyogenes aureus* into the blood of the rabbit may cause death by pyæmia, but it does not induce malignant ulcerative endocarditis. Simple chemical or mechanical injury to the valves and endocardium does not induce endocarditis. Perform both operations at once and the disease almost invariably follows.

This predisposing factor in disease, which has long been recognized, has become more evident and demanded a more precise comprehension since the causative relationship of microorganisms to certain diseases has been established. In the disease before us, the gross nature at least of the predisposing factor is very simple and evident. In other diseases—tuberculosis or pneumonia, for example—the conditions are much more subtle and difficult of definition but none the less important.

In the search after these predisposing con-

ditions in diseases already proven to be immediately due to the action of bacteria, such a vast amount of labor remains to be performed, both in the clinical, physiological, and morphological departments, that it becomes evident that the whole field is by no means won, as is too often assumed, when a disease is demonstrated to be of bacterial origin.

The immediate duty of observers of malignant ulcerative endocarditis from the etiological standpoint is evidently to study every suitable case completely by the biological as well as the morphological methods and thus ascertain the exact characters of the bacteria involved.

Finally, in view of the significant relationship of the bacteria of pyæmia and suppuration to malignant ulcerative endocarditis in the cases thus far fully examined, it is evident that a demonstrably diseased condition of the heart valves, or a previous history which would suggest the possibility of such a condition, should be an additional incentive to the practice of a vigilant antisepsis in operations, however simple, upon this class of cases.

WOUNDS OF THE SCALP.

Dr. Robert Morris,
in his excellent little
manual on wounds,

says: "The man who is run over in the street by a carriage never expects to be run over when he starts to cross the street. Men are run over in the street, however.

"It is cruel to close a scalp wound with adhesive plaster, and allow the patient to go about with no additional dressing. A dozen small plastered scalp wounds may do well. How about the thirteenth case? Develops cellulitis! Is cellulitis necessary? Not at all! It is superfluous, especially if it occur in your own family.

"If you are inclined to put plaster on a scalp wound, don't do it. In no line of surgery is it easier to bungle a job than in treating the trivial wounds, known as scalp wounds."

BOOKS AND PERIODICALS.

TRANSACTIONS
STATE MEDICAL
ASSOCIATION
OF TEXAS.

Eighteenth Annual Session,
held at Dallas, April 27,
28, 29, and 30, 1886.
Cloth. 691 pages.

This volume is the largest and in every way the most creditable work of its kind in this country. No other State can offer any thing for favorable

comparison with this.

The work of the Society is done strictly by sections and committees, as follows: A Judicial Council of twelve members; Sections on Practice of Medicine, Materia Medica, and Pathology; Obstetrics and Diseases of Children; Surgery and Anatomy; Medical Jurisprudence, Chemistry and Psychology; State Medicine and Public Hygiene; Gynecology, Ophthalmology, and Otology; Dermatology and Medical Botany; Electro-Therapeutics. Delegates to other Societies are then named, and the following committees appear: Necrology, four members; Legislation, seven members; Publication, three members; Collection of Surgical Cases, six members; Arrangements, twenty-four members, all residents of Austin, the next place of meeting; Prize Essays, five members; Collective Investigation of Disease, six members; on Revision of the Constitution and By-laws, three members, and an Essayist, Dr. A. G. Clopton, of Jefferson, for 1887. The officers are, President, Dr. T. H. Nott, of Goliad; Vice-Presidents, Dr. R. H. Chilton, Dallas, Dr. J. C. Loggins, Ennis, Dr. H. L. Parsons, Kaufman; Secretary, Dr. F. E. Daniel, Austin; Treasurer, Dr. J. Larendon, Houston.

The able journalist of Austin, Dr. F. E. Daniel, is the chairman of the publishing committee, and to his skill and ability are due the principal credit of classifying and arranging in general the details of the enormous work and of issuing this magnificent volume.

The reports of chairmen of sections are all ably gotten up.

The annual address of the President, Dr.

E. P. Bechton, was so much above the average of its kind as to have attracted wide attention, and is still being discussed in the medical journals. Some have considered it rather over-wrought in sentiment and fervid in style.

We do not consider questions of style and taste in a composition of this kind so long as they are not bad. It was intended to fire the ambition and renew the mutual pledges of fraternity from the stand-point of an over-zealous churchman. To justify the standard of his own address, we must accord to Dr. Bechton a distinguished place as a citizen and a member of the medical profession.

Dr. Atcheson's report on "Texas Quackery" was unfortunately crowded out. Judging from the preliminary remarks with which he presented the subject, the report itself must have been highly amusing. It embraced reports by counties; of the 116 older counties of this State, reports were collected from sixty-four, detailing acts of medical impropriety. The position assumed by Dr. Atcheson that it is the duty of the medical profession to expose quackery by presenting its practical aspects and real character to legislative assemblies is entirely correct; this seems to us the only manner in which suitable legislation for the protection of life and health against both the ignorant and the designing quack doctor may be secured.

An unusually interesting paper is that of Dr. C. M. Ramsdell, Lampasas, on the "Use of Boric Acid in Surgery and Gynecology." In chronic otorrhea Dr. Ramsdell washes out all the matter with warm water injections, then dries the cavity with small mops of absorbent cotton wrapped on the end of a probe; he then introduces a small glass tube containing a quantity of powdered boric acid, and attaches a small rubber bulb to the tube and blows into the ear enough of the powder to completely fill the cavity. As often as the excretion of pus or other fluid became sufficient to moisten the powder, the ear was again washed out and the insufflation repeated. In the treatment of

leucorrhea Dr. Ramsdell uses the syringe and warm water first, then introduces a quantity of absorbent cotton, first wet, then rolled in powdered boric acid, forming a ball as large as the cavity of the speculum used; this he pushes up against the os and permits it to remain there. He treats gonorrhea in the female in the same manner, except that, instead of the ball of cotton wool pressed against the cervix, he uses larger amounts sufficient to distend the whole vaginal canal. In amputations of the finger, and in large open wounds, he covers the entire surface with powdered boric acid and then applies the dressing. In circumcision and in congenital phimosis, boric acid is applied in the same manner. Altogether Dr. Ramsdell's experience with boric acid gives to this valuable medicine a new place in surgery.

Dr. R. H. Chilton, of Dallas, Chairman of the Section on Ophthalmology and Otolology, premises his report by a reply to a criticism upon the frequently insufficient qualifications of specialists. Dr. Chilton agrees that all specialists should be generally educated in medicine and should have a practical knowledge of its details. Yet, he says, to be a successful ophthalmologist, one can not find time to be a general practitioner or general surgeon.

PROGRESS takes occasion to suggest that Dr. Chilton's criticism would have been far more effective had he supplied his own personal experience for illustration. He should have said the specialist may begin the profitable study of his specialty after he has acquired general proficiency in his familiarity with diseases and injuries in general, and after having qualified himself for the study of a specialty he may then be recognized as entirely excused from re-engaging in general practice.

Dr. Chilton was himself a successful general practitioner of medicine and surgery for a number of years in this city, and after advancing to an unusual degree of prominence in *general* medicine and surgery he

entered the field of specialism, in obedience to a previously formed determination. Of course, no one expects that the specialist shall be a general practitioner, and Dr. Chilton should not have argued the question against the position of Dr. Knott, of Goliad, upon this ground.

Dr. Chilton's report is ably gotten up and reflects credit upon the Society. He refers to the increasing confidence with which cocaine is used, and points out the danger of developing acute glaucoma in morbidly sensitive eyes by the use of atropia. He considers jequirity a valuable medicine and attributes very justly the unfavorable reports concerning its effects to a want of discrimination on the part of those who use it. He points out the value of pilocarpin in the treatment of choroido-retinitis. Enucleation of wounded eyes is strongly insisted upon as in all cases decidedly preferable to evisceration or exsection of the optic nerve. In senile cataract Dr. Chilton prefers the old flap operation without iridectomy, having the pupil previously dilated, and making the extraction as complete as possible. He prefers peripheral section of the capsule, and thinks section should never be done in the polar region.

In chronic inflammations of the nose and pharynx, Dr. Chilton has great confidence in insufflations of a powder composed of equal parts iodoform and boric acid.

Labyrinthian Deafness, by Dr. J. R. Briggs, of Fort Worth, forms the subject of a very well-written and entertaining paper. On careful reading, we confess to a little skepticism concerning the soundness of the views of the essayist on questions of pathology, and feel, therefore, somewhat inclined to insist that a strictly technical construction of Dr. Briggs' language would fail to establish the scientific merits of both his definition of disease and the legitimate character of his conclusions. He speaks of a chronic catarrhal condition of the tympanic cavity and its normal outlets, followed by vertigo, as

characterizing secondary labyrinthian disease. His first case cited for the purpose of elucidating his theory is that of "A lad nine years old, a picture of perfect health in physical appearance, but often maniacal, at times necessitating constant surveillance. He was said to have suffered an attack of chicken-pox; and was not conscious for thirty-six hours. On returning to consciousness he was deaf. The external auditory meatus were completely filled with impacted cerumen and other accretions, which seem to have been the result of a transient inflammation of the mucous membrane of the external meatus only. After removing this hardened plug from both meatus further inspection revealed perfect drums. There was no sinking in of the drums, or cicatrices going to show that there had ever been present an inflammatory trouble of the tympanic cavity. . . . This was certainly a case of primary labyrinthian deafness, uncomplicated with any catarrhal or other superficial disturbances except the cerumen present. The eruption on the child at the time was, in my opinion, an ever-present symptom of acute labyrinthian disease instead of varicella, as diagnosed at the time by the attending physician. No treatment was recommended."

We protest against the diagnosis based upon such grounds; unless both the tuning-fork and Eustachian catheter were employed, we should not admit Dr. Briggs' diagnosis. We likewise protest against his conclusion that impacted cerumen is ever an indication of pre-existing inflammation of the lining of the external auditory canal; and, finally, we insist that there is no *mucous* membrane of the external meatus auditorius. We might find other grounds for just criticism further on in Dr. Briggs' essay, but we forbear.

Passing to page 545, we find a prize essay by Dr. J. R. Briggs, of Dallas.

We naturally incline to wonder, from certain peculiarities of style in the composition and the identity of names, whether

it may not be possible the prize essay was written at Dallas, and the Labyrinthian Deafness at Fort Worth, by the same individual. Three members of the committee of five, who awarded the prize, reside at Dallas, and it is likely they felt inclined to recognize the patient labor of their fellow-townsmen, whose essay occupies eighty-four pages of the transactions, on account of the honest effort and great length of time it must have taken to prepare it, as well as the voluminous character of the essay.

That our readers may know of the merits of this prize essay, which is entitled, *Reflections on Physical and Mental Culture*, etc., we cite the following from page 626:

"If poverty of soul engenders violations, to correct such a degeneration is to incur beneficent results upon futurity. I have endeavored to speak of the correction of physical bankruptcy as of primary importance; but I now come to look upon psychical disturbances as none the less important in aiding a perfect whole in its full completeness of development. If we take the idiot as the lowest state of a depraved psychosis, we find the number small, even should the idiocy be of the mildest grade recognized by the term. Passing up, however, we find a large number of young and old, who, while not considered as belonging to any anomalous states, are to be studied. From this class or grade, whose intelligence may be passable, but yet are cursed by the germs of viciousness, is the class from which most of our criminals are drawn. The psychical condition of the negroes of this country, as compared with the whites, may be seen by the fact that seven eighths of all our criminals are negroes. The one eighth of whites, if well studied, would, I think, reveal the fact that their penal servitude is the fruit of inheritance, aggravated by incorrect habits, physical weaknesses, and general errors and lack of education.

"I am earnest, too, in the belief that we have the power to immediately abbreviate

this miserable class of human beings, by some of the means already suggested."

An analysis of such logic as "Aiding a perfect whole in its full completeness of development," is patiently awaited by the writer of this notice, who timidly assumes to speak for a painfully anxious public.

By all means let Dr. Briggs proceed at once to *abbreviate* the "miserable class of human beings," and let us observe the result.

OUTLINES OF
THE PATHOLOGY
AND TREATMENT
OF SYPHILIS
AND ALLIED
VENEREAL
DISEASES.

BY
HERMAN VON ZEISSL,
M. D.

Late Professor at the Imperial-Royal University of Vienna.

Second Edition. Revised
by

MAX. VON ZEISSL,
M. D.

Privat-Docent for Diseases of the Skin and Syphilis, at the Imperial-Royal University of Vienna.

Authorized Edition. Translated, with Notes,

BY H. RAPHAEL, M.D.

Attending Physician for Diseases of Genito-Urinary Organs and Syphilis, Bellevue Hospital, Out Patient Department; Member New York County Medical Society, etc.

New York: D. Appleton & Company. 1886.

This is a carefully written work, embodying the results of the observation and treatment of about thirty thousand patients in his private practice and in the wards of the Allgemeine Krankenhaus of Vienna.

In the annunciation of principles, the author, at page 10, says: "There is no chancreous syphilis, no primary, and no secondary syphilis. It is only proper to speak of chancre-syphilis when it is desired to indicate that the chancroid poison was mixed with syphilitic poison. The Hunterian induration may indeed be looked upon as the first manifestation of syphilis that is about to develop, but is by no means to be regarded

ering syphilis as a triune poison, exhibiting three distinct and separate characters in as many stages of its evolution; and, then considering the treatment of syphilis in its different phases; and, proceeding according to its forms of manifestation, many different drugs have been named as specifics.

If brought to regard syphilis, as in its pathological aspects, resulting from the evolution of a specific germ, the exact nature of which is unknown, we shall be limited in the choice of remedies by the peculiar pathological conditions which are present in individual cases, there is at this time no antidote to this virus, and consequently no specific against the evolution of the syphilitic germ.

Dr. Zeissl thinks it best to permit the disease to spend its fury before resorting to the use of mercury in any form. He is convinced syphilis may get well spontaneously.

The translator, Dr. Raphael, unfortunately injects his own ideas into the text in such way it is not always easy for the reader to determine whose views are presented.

It is easy enough to see that Raphael is far more wedded to the mercurial treatment than Zeissl. At page 336, it is stated that: "We think it is very important for the patient, even when all the symptoms of the disease have disappeared, to continue the treatment with iodine for a long time, at least for a whole year. If a patient desires to be treated with mercurial preparations, as is now and then the case, a cycle of ten to twelve inunctions may be tried during the first year, albeit no symptoms of syphilis manifest themselves." At page 337, it is stated: "We are convinced that mercurial preparations play only a subordinate part in a course of anti-specific treatment, continued for a year or more. . . . It is not safe to declare a patient permanently cured if at least a year has not elapsed after the last symptoms disappeared."

The expectant method of treatment, which consists in the regulation of the patient's

as a primary evil, whose virus in the course of absorption will become converted into the so-called secondary syphilitic virus."

It seems strange, yet it is nevertheless true, that writers and teachers have alike fallen into the unfortunate habit of consid-

diet, and in local applications to the primary lesion, and in total abstinence from the use of tobacco. Moderate amounts of wine and beer may be permitted, but tobacco in all forms absolutely forbidden.

"If secondary phenomena come on in the form of macula, or papular syphilide, the physician should still content himself with hygienic measures. It is thought in persons generally weak and debilitated the disease is not so apt to disappear under this method as in persons of robust health."

The author thinks relapse, and the graver forms of syphilis, involving the central nervous system, important viscera, etcetera, will be more rarely observed after an expectant method of treatment than after an early mercurial plan.

If the phenomena of the second manifestation of syphilis persist, beyond eight or ten weeks, the treatment with iodine may be next used. This treatment, it is said, is clearly well adapted to all phases of syphilitic disease. And next after the expectant method, in robust subjects, the iodine treatment is preferred by the author. Iodine, in proper quantities, he thinks, in conjunction with carefully regulated regimen, may be sufficient to cause the symptoms of syphilis to disappear, or, at least, so weaken the effect of the specific virus as that a few mercurial inunctions will suffice to complete the cure.

The work of the translator is exceptionally well done, and there can be little doubt the student and practitioner will alike find this, in many respects, a vastly superior treatise to any thing which has preceded it. Certainly the author's views on the pathology of syphilis in its varying conditions are far more sound than one ordinarily finds in such a work.

It is refreshing to observe the earnest attention to the local pathological processes which characterize syphilis, instead of such terms as *secondary*, *tertiary*, *brain syphilis*, *bone syphilis*, and many other such meaningless terms as abound in works on Syphilis.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF MISSOURI,

At its Twenty-ninth Annual
Session, held at St. Louis,
Mo., May 3, 1886.

This is a pamphlet of one hundred and eighteen pages, containing a list of members and officers, including the committees and the minutes of the meeting, with an address of welcome

by C. H. Hughes, and the President's annual address by Dr. George C. Catlett, of St. Joseph. Dr. Catlett introduces himself with an apology, and proceeds, at once, to proclaim the allegiance of the profession in Missouri to the American Medical Association. He then briefly considers some of the advances recently made upon "the primitive mysticism of the ancients."

An essay on Addison's Disease associated with gastric ulcer, with an account of a post-mortem examination, by N. M. Baskett, of Moberly, is worth reading.

Next comes an account of an unusual case of syphilis by A. H. Ohmann-Dumesnil, M. D., of St. Louis.

The curability of epilepsy and epileptoid affections by galvanism and the phosphated and arseniated bromides, by C. H. Hughes, M. D. Dr. Hughes is a fascinating writer and an able observer. He says: "No epileptic can be cured who persists in the use of tobacco and alcohol, or other depressing narcotics; or vicious habit, or who does not give up coffee and tea and learn to use milk and a minimum of animal food, or to use tea and coffee only very sparingly and in the forepart of the day only. He must have secured to him the habit of sleeping abundantly and quietly, avoiding all sources of passionate outbursts."

Dr. J. W. Heddens, of St. Joseph, reports two cases of gun-shot wounds, following which is the report of the special committee on Collective Investigation of Disease.

Dr. B. V. Hall, of Brownsville, with his report, is brief, pointed, and practical. It deals somewhat extensively with the Salisbury doctrine of the cryptogamic origin of

malarial fevers, and adds no material facts to the generally accepted views of Crudeli and Klebs.

Dr. Homan reports for the State Board of Health on the subject of medical education. The chief merit of this report is its brevity.

The report of Dr. D. H. Shields, of Hannibal, on State medicine, appears to be a sort of supplementary statement to that of the one preceding it.

Following Dr. Shields, comes the report of Dr. J. P. Thatcher, on medical education, in which he throws a little mud at the schools, and closes with a hope that some legislative enactment may yet be obtained in Missouri to secure a better standard of requirement for medical practitioners.

THE LIVERPOOL
MEDICO-
CHIRURGICAL
JOURNAL,
INCLUDING THE
PROCEEDINGS
OF THE LIVER-
POOL MEDICAL
INSTITUTION.

Published semi-annually, January and July; single number three shillings and sixpence, subscription price six shillings and sixpence per annum. All communications should be addressed to the Medical Institution, Hope Street, Liverpool, or to H. K. Lewis, No. 136 Gower Street, London.

Judging by the two numbers which have already appeared, this enterprising and sprightly periodical is to become the medium of disseminating the results of the principal part of the work done at the Liverpool Medical Institution. The papers are practical and well written, while the editorial work is well nigh faultless. A large

number of the papers contained in this publication have already been copied by the more discriminating journals of this country.

It is gotten up in good style, in bourgeois type, on heavy paper, 8vo form, and of about 250 pages to the number.

Its advertising department has already attracted the attention of Parke, Davis & Co., whose well-known soluble elastic capsules are mentioned with Fellow's syrup of the hypophosphites, and Carnrick's soluble food for infants, as new drugs.

A MANUAL OF
OBSTETRICS,
BY
A. F. A. KING, A. M.,
M. D.

Professor of Obstetrics and Diseases of Women and Children, in the Medical Department of the Columbian University, Washington, D.C.

With 102 Illustrations.

Third Edition. Philadelphia: Lea Brothers & Co. 1886.

The first edition of this work appeared in 1882, and was at once popular. In the preparation of the third edition some portions have been entirely rewritten. Some new illustrations have been added, and many additions to the original text have been made. In its revised form, we know of no manual

upon any subject which, in point of completeness in every practical detail, may be fairly compared to this.

The illustrations are exceptionally good.

PRACTICE:

The Physician's Monthly Journal. Pointed, practical, progressive. Annual subscription, in advance, \$1.00; single copies, ten cents.

J. F. WINN, M. D.,
Editor and Proprietor.
Vol. I, No. I. Richmond, Va.
December, 1886.

This is a neat little pamphlet of twenty-four pages, containing brief, practical abstracts of recent contributions to medical literature. Dr. Winn

is an experienced editor, and richly deserves to succeed in his venture.

With cordial greetings of fraternity, we add *Practice* to our list of exchanges, and shall look anxiously for its increasing growth and prosperity.

THE SOUTH-
WESTERN
MEDICAL
GAZETTE,

A monthly journal of medicine and surgery, edited by

M. F. COOMES, M. D.,
AND
J. B. MARVIN, M. D.

Terms, \$1 a year in advance. The Bradley and Gilbert Co., publishers.
Vol. 1, No. 1, January, 1887.

This is a handsome thirty-two-page double column magazine, gotten up, as the editors claim, "in the exercise of an inherent right," with an independent policy, eschewing personalities and controversies, and free from all entangling alliances. This,

the first number, is tendered as a Christmas present, which we gratefully accept with our best wishes.

CORRESPONDENCE AND SOCIETIES.

SECOND CONGRESS
OF FRENCH
SURGEONS.

BY

MARCEL BAUDOUIN.

Translated from *Le Pro-
gres Medical*, for PRO-
GRESS, by MRS. SALLIE
E. MORRIS, Cov-
ington, Ky.[Meeting of Oct. 18, 1886.
M. Ollier, presiding.]

M. J. REVERDIN, of Geneva, presented a contribution to the study of the consecutive myxœdema after a total or partial extirpation of the thyroid body. After a discussion of the question it was clearly shown that to M. J. Reverdin

should be attributed priority of the discovery of *myxœdema opératoire*. The speaker demonstrated the analogy, if not the identity of the myxœdema, with the "cachexia strumipriva." He laid stress (1) upon the clinical characters, palor, bloated and hard swelling of the face, like cretinoide, also of the hands and of the feet, without albuminuria, physical, intellectual, and sensorial weakness, sensation of cold accompanied with suppression of perspiration, dry skin, scaly like a fish, falling out of the hair and beard, diminution of the pulse, enlargement of the tongue, pseudo-lipomæ upon the clavicles.

2. Upon the work recently published by M. M. Bourneville and Bricon, who have just described under the name of *Idiotie Crétinoide with Cachexia Pachydermique* several cases exactly alike, wherein the disease develops spontaneously during infancy, and where known autopsies have given undeniable proof of the absence of the thyroid gland, counterpart of the case of the child operated upon at the age of ten years, and whose history, accompanied with the autopsy, has been published by M. Grundle.

3. Upon some practical experiments made on the monkey, by M. Horsley, which, according to him, became *myxœdematous* following the total extirpation of the thyroid gland.

4. Finally, upon certain autopsies known to the present day—three in number, but of

which two only could be considered as sufficiently confirmative on account of concomitant lesions, phthisic and epilepsy. M. Reverdin considers the term "*myxœdema opératoire*" as perfectly justifiable and preferable to that of *cachexia strumipriva*, which does not answer the phenomena observed in all cases. M. J. Reverdin then describes the progress of the disease, a course which may be progressive, with or without remission of long duration, appearing under an attenuated or emaciated form, and cites, in support of this, three observations wherein is proven a progress, first progressive, second progressive with remission and relapse, third pronounced remittant during five years. In two other observations the remission appeared due to the development of a small thyroidal tumor, which made its appearance, in one case, four years and a half after the operation, in the other, five years. These patients had only shown symptoms of attenuation, and the amelioration may be considered as equivalent to a cure. The development of this thyroidal tumor has been attributed either to a regeneration of the gland or to a lobule escaped during the operation.

This last hypothesis, the most plausible, is adopted by M. Reverdin. It follows that the myxœdema can develop even when the extirpation has not been anatomically total. One could reasonably ask if the *cachexia pachydermique* could develop when the extirpation is not surgically total. This development appears possible after some myxœdema with symptoms of emaciation observed in several cases operated upon (with one lobe) by M. M. Girard, Niehaus, Poncet, of Lyons, and by M. Reverdin. The extirpation of a lobe in a case recently observed by M. Reverdin was followed, *nevertheless, by an incontestable myxœdema* with emaciation. In this case there was consecutive atrophy of the remaining lobe. This atrophy, without myxœdema, it is true, has been observed by M. M. Wolff and Küster following partial extirpation, and by M. Sidney Jones, after

the simple section or resection of the isthmus. M. J. Reverdin believes he will be able to determine from the facts observed by himself or by others:

1. The accidents following the extirpation of the thyroid body in the human species present the same characters as the myxœdema or cachexia pachydermique. The name, "myxœdema opératoire," that we proposed in 1883, appears to me completely justified.

2. The total extirpation of the thyroid body is not necessarily followed in man by myxœdema. It is often not found in the adult, and may be wanting in the child.

3. The "myxœdema opératoire" presents different forms, progressive, with or without remissions of longer or shorter duration; attenuated forms, susceptible of amelioration, if not of complete cure. Light and emaciated forms.

4. An amelioration of long duration can be effected in an adult, although the extirpation may have been really total. I have observed in two cases an attenuated form with considerable amelioration equivalent almost to a cure following total extirpation, but in both cases small thyroidal tumors developed a long time after the operation in the vicinity of the thyroid cartilage, which seems to indicate that the extirpation was surgically total, but it was not anatomically so.

5. As has been shown by the two preceding facts, partial extirpation may be also followed sometimes by myxœdema. I observed it at the time in its cachectic form. The extirpation of one of the lobes of the thyroid may be followed by atrophy of the rest of the organ. In the case which I reported, the operation presented phenomena of *myxœdema* with cachexia.

M. THIRIAR, of Brussels, gave an account of his researches upon "The Analysis of the Urine in Abdominal Surgery." This surgeon entertained the Congress with his labors upon this subject last year. To-day he concludes that the quantitative analysis of the urine, with reference to the amount of

urea, affords a valuable diagnostic sign in doubtful cases of abdominal tumors. Among fifty-five patients who came to him he operated upon fifty-one of them, and analyzed the urine of forty-six. The precautions to take are the following: Take a sample of urine from the total voided during twenty-four hours. Repeat the analysis several times ten to fifteen days together, if it can be done, and take the mean quantity. The patient must have neither renal nor tuberculous disease, nor be in a feverish state. In such condition he could easily render an account of the value of the signs furnished by the azoturia.

(1) In the benign tumors of the abdomen the average of the urea secreted in twenty-four hours varies from fifteen to twenty-five grammes, and is always more than twelve grammes. He cites two cases of hypertrophic tumors of the spleen, and two cases of contraction of the esophagus, when he was able to formulate the prognostics, thanks to the value furnished by the quantity of urea. The amount of the urea will rarely reach normal, that is to say, thirty grammes.

(2) In malignant tumors of a dangerous nature, relapsing, infecting the whole economy, there is hypo-azoturia. The amount of the urea is less than twelve grammes. Nevertheless, momentarily, one can note an increase (one case of cancer of the *épiploon*, four grammes, uterine tumor, eight grammes). He relates, in closing, a curious case of a patient whose disease had been diagnosed and symptoms indicated a *cyst of the ovary*. Upon an analysis of the urine he found only seven grammes of urea daily. He suspected a tumor of malignant nature, and *formulated a sad prognosis*. The operation really showed that *behind the cyst* of the ovary was concealed a *carcinomatous* tumor.

M. GUYON, of Paris, read an essay upon the "Indications and Contra-Indications of Lithotripsy." He criticises at first the opinion expressed by several eminent surgeons

of Germany who appear convinced of the superiority of cutting over *rapid lithotrity with aspiration*. This last operation can only be well performed by skilled specialists. Guyon says lithotrity is only difficult in certain cases; in some others it should yield to lithotomy. In the greatest number of cases it is after all easy. This must be admitted. The proof of it is, according to the statistics of his service, he had only five per cent mortality.

He passes then to the study of special conditions, in which were found patients who died after a lithotrity. The age is of great importance. Yet with very old people the crushing should naturally be preferred to the cutting, for it is necessary to avoid all loss of blood. The size and the number of calculi, as also their best dress, gives occasion for very many remarks, which were noted in the works of M. M. Tuffier and Desnos. The hypertrophy of the prostate does not constitute ordinarily a difficulty. It is of the utmost importance to pay strict attention to the condition of the kidneys, or other *lesions* of the renal organs from the time the patient comes to consult you, and of the age of his calculus. In fact it is sufficient to introduce an instrument into the bladder in order that renal lesions, hidden until then, may be revealed, or if they exist in aggravated form. The cystitis in an acute state is not a *contra-indication*. It ordinarily disappears after the operation. Fever is only observed in nine cases out of one hundred. Relapses are very rare—five per cent. Lithotrity such as Prof. Guyon practices daily is entitled then to the first rank among operations for stone, and it devolves upon surgeons to maintain it there by practicing it often. It will no more prove to be a feat of strength, even to German surgeons.

MEETING OF

OCTOBER 19.

M. PLUM, Professor of Surgery in the university at Copenhagen, opened the discussion on "The Nature, Pathogenesis, and the Treatment of Tetanus."

M. VASLIN, of Angiers, said, of seventeen cases of tetanus observed by him he had seen but one case cured. The treatment which he has chosen, and which he has been able to carry out completely only in the case where he effected a cure, is the following: Perfect isolation in a darkened chamber, administration of chloral, four grammes daily at first, then injections of morphine, 0.01 centigramme for twenty-four hours alternately with chloral; keep regular temperature, 20° to 25° Cent., very careful nourishment, composed mainly of milk. His patient was cured at the end of thirty days, and there was no return of tetanus, even after another accident. He thinks he had in this case to contend with a form of curable tetanus, veritable tetanus nervosique, susceptible of relapse. He injected into a very large dog some of the blood, sweat, and urine of this patient without any perceptible effect on the animal.

MR. BALESTRERI, of Genoa, considers tetanus a disease of the nervous system. With this idea as a basis, he recommends to his colleagues a treatment which he has employed very successfully in other cases of nervous affections. It is the use of tartrate of antimony. He gives a dose of 0.05 centigrammes the first day; then the following day a dose of 0.20 to 0.25 centigrammes, both to be taken in a glass of water. He cites two cases of cure. In regard to the use of chloral, he relates the fact of a tetanus patient who took .320 grammes of chloral in eight days.

MR. THIRIAR, of Brussels, had recently seen four fatal cases of tetanus following ovariectomy. The first case was an ovariectomy for a unilocular cyst. Death followed thirty-six hours after the tetanic symptoms set in. The second case followed Battey's operation for chronic metrorrhagia, due to a uterine tumor which could not be reached. Death followed in twelve hours after the tetanus. Third case: removal of an ovarian cyst in a girl twenty-three years old. She died eighteen hours

after the tetanus, notwithstanding she got hypodermic injections of cocaine. After death the temperature rose to 44.5° C. Fourth case was one in which the same operation had been done, death coming seven hours after tetanus set in. He thought contagion had caused the tetanus in the three last cases. This view is supported by the period of incubation which is common to the microbic character of traumatic tetanus, and which corresponded in all these cases to the period between the operation and the tetanic symptoms. He is impressed with the idea that hypodermic injections of cocaine offers encouraging results. He supported his views of the origin of tetanus by reference to the experience of the profession in the vicinity of Brussels. In eighteen months eight cases occurred in a village where no previous cases had been seen for thirty years.

(TO BE CONTINUED.)

DO NOT SEPA-
RATE THEM.

BY PROF.
WM. H. WATHEN,
M. D.

EDITOR PROGRESS:

An editorial note in the December issue of PROGRESS entitled "Let Them Unite," may have been in-

tended as an innocent joke, but as there are members of our profession in general and special practice who seem to believe that it is unnecessary for a specialist to have a knowledge of any of the branches of medicine except what relates directly to his specialty, I feel constrained to ask you for a word in reply. You said:

"The great objection some cynics have urged against the severance of obstetrics from gynæcology as a specialty, is that all general practitioners are likely to have occasionally to perform accouchment at the bedside. According to the claims of the gynæcologists, most of their business is to repair the blunders of the obstetricians. This clearly enough suggests grounds for even a closer compact, which, being accomplished, may yet lead to the birth of a new specialty,

and the creation of another section in the American Medical Association."

Differentiation is the test of civilization, and the present age demands specialism; but the correct understanding and the sphere of legitimate specialism in medicine, is often imperfectly understood, hence the unjust criticism that the real and honorable specialist is sometimes subjected to. Specialism has done more since the middle of this century to perfect the science of medicine than had been accomplished during the three hundred preceding years; but unfortunately young men are falling into the fatal error of attempting to practice a specialty immediately after receiving their medical diplomas; possibly there are medical colleges that do not require pupils preparing for special practice to pass a *rigid* examination in all the branches taught.

No physician can be a successful specialist until he has acquired a knowledge of the science and practice of general medicine, for all its parts so interlace that their practical and theoretical study can not be separated. Probably a man may consistently devote all his attention to one of the subsidiary or elementary branches, such as physiology, anatomy, or pathology. A degree of manipulative skill may be acquired without experience in general practice, but this is not scientific or successful specialism. The ideal specialist has gradually fallen into a particular line of practice, because of the development of some marked aptitude for the treatment of a disease, or a limited number of diseases; or for the reason that circumstances have compelled him to devote much of his time and attention to a few diseases. While this is true of all practical specialties, it is especially applicable to gynæcology, for the local and reflex symptoms of diseases of the woman's generative organs are so numerous, various, and complex, that it may be impossible by every means of diagnosis to positively locate the disease in the uterus or its appendages, or in some

other organ or structure. The gynecologist should practice general medicine for many years, and he should never cease to study all the branches, in order to keep himself acquainted with the latest improvements and discoveries in medicine. By continuing to practice obstetrics he may prevent many of the diseases or injuries that result from pregnancy, parturition, or the puerperal state that he would otherwise be called upon to treat. It is hardly possible to treat successfully diseases or injuries resulting from child-bearing without a practical knowledge of how such conditions are caused. I am, sir, very respectfully,

W. H. WATHEN.

RECOVERY FROM INSANITY.	In an address to the fortieth annual meeting of the Association of Medical Superintendents of American Institutions for the Insane, Dr. E. T. Wilkins, of the State Institution at Napa, California, says: "I regret that my confidence in the restoration from insanity is very greatly diminished with the experience I have had during the past ten years; and hence, if any superintendents present have read my reports, they have probably noticed that my discharges have been of improved cases rather than recoveries. I find they are much more liable to recur than I once thought, and I am, therefore, much more guarded in calling a patient restored than I was formerly. I do not believe that more than twenty-five in a hundred will get well, although I know you have put it to-day at forty."
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In the course of further discussion of this subject, it was stated, by Dr. Hurd, that in his experience general paresis followed by dementia had recovered. He quoted two cases from the practice of Dr. Peters, of Gheel, in one of which apparent recovery had resulted from extensive carbuncles. In a case occurring in Dr. Hurd's own practice, he attributed the recovery to sloughing of the heel. In conclusion he said, "I am

also of the belief that if we could arrange to make an extensive slough in every case of paresis we would have more recoveries."

In a study of this discussion, one naturally inclines to inquire the real meaning intended to be conveyed in the word recovery. If an extensive slough is able to accomplish any thing not attainable by the ordinary courses of medication, it seems to devolve upon Dr. Hurd to make it plainer to the common herd of the profession. We confess that in reading of these recoveries, so-called, we are forcibly reminded of those fabled accounts of recovery from *tiedouloureux* by decapitation.

THE USE OF ARTIFICIAL EYES.	No artificial eye should ever be introduced so long as any portion of the eyeball remains in the orbit, because the ciliary nerves passing through the sclerotic enter the choroid body, and because the retina with its separate and complete system of blood-vessels are constant sources of danger, through reflex irritation, to the fellow eye.
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After enucleation, an artificial eye should be inserted as soon as the conjunctiva, with its attached capsule, and the divided tendons of the recti and oblique muscles are shrunk sufficiently to allow the introduction of the artificial eye without impinging upon swollen tissues. This prevents the overlapping of the ciliary margins of the eye-lids, and conducts the tears into the lachrymal passages, thus rendering the patient more comfortable, and greatly hastening the period of convalescence from the operation.

The artificial eye, introduced within four or five days from the date of the enucleation, while adding greatly to the comfort of the patient, will, at the same time, adjust itself more readily, and tend to prevent the retraction of the orbital contents, which gives to the eye a sunken appearance where the artificial eye is not introduced sufficiently early.

PROGRESS

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DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

D. W. RAYMOND, BUSINESS MANAGER.

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RANK OF THE MEDICAL OFFICERS OF THE NAVY.

The question of rank of the medical officers of the army and navy is one which has been agitated from the beginning of the

foundation of the navy. In the army, the standard of qualification, and the relative gradation of rank seems to be about as well adjusted as the nature of the official duties, and the relative powers and authority of the officers of the line and staff, and the medical corps will, under the circumstances, permit.

In the navy it seems to be different. The standard of qualification is not very high, yet the relative rank, power, and authority with other officers of the navy is so disparagingly low that it seems no young man of respectable intelligence and first-class qualifications is willing to engage in that branch of the public service, and, therefore, great grounds for complaint exist, both as to the qualifications and the dignity of rank and position of the medical officers of the navy.

There is good ground for complaint on this score, and much room for reform. It is a fact, painfully familiar to nearly every person who has ever crossed the Atlantic, that even the finest passenger steamers are not supplied with any respectable medical talent. There are many reasons for this. In

the first place, the surgeon upon even the best one of these steamers is a person without rank, without authority, and generally with very inferior qualifications.

Recognizing these facts, a line of steamers, known as the Red Star Line, a year or two ago, boldly proceeded to place the ship's Surgeon on the same plane with the second-class passengers, and in rank equal only to the boat-swain, while in authority it may be said he is scarcely above the commonest Tar who walks the deck.

If the United States Congress could be induced to enact such reform laws as would correct these great evils, it would bring many blessings to afflicted humanity. In a recent editorial in the New York *Medical Journal*, this expression occurs: "God help the American officers when on board ship in an epidemic of yellow fever or cholera, or wounded in battle, under such a system."

There can be little doubt that the officers of the medical department of the United States Naval Services are an exceedingly unfortunate class of people, and in no way equal to their brother officers of the army. It is impossible that any man of spirit could be found willing to accept a position in the medical department of the navy when he is brought to an understanding of his anomalous position, practically without rank, and in fact subject to the orders of conceited ignoramuses who may happen for the moment to be in command of the ship.

No well informed person will maintain that it is just for a lieutenant in the navy to possess authority of rank superior to a major in the medical department of that service. Medical officers do not wish to assume command, but it is simply justice they should be respected according to their rank, and that they should rank according to the dignified position their professional relations to the services entitle them, as compared to the army, or the better organized naval service of other nations.

A few independent spirits in this arm of the service, knowing the weaknesses and

deficiencies of the system of organization, might readily point out to a Congressional committee practical methods for reform, and in that way secure relief from the mortifying circumstances of a national evil, sanctioned by law, and intensified by custom.

When some of the measures of relief which the deplorable state of the medical service in our navy demand have been secured, it will not be long until all the vacancies are filled. In the army a vacancy in the medical service has only to be announced when scores of highly accomplished applicants appear. In the medical service of the navy no one can be induced to accept vacant places.

<p>HABITS THAT INDICATE MEN- TAL IRRESPON- SIBILITY.</p>	<p>It is a sound principle in jurisprudence that a person of good mental capacity and good general education will be governed</p>
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in all ordinary social and business relations toward others by the ordinary principles of reason, doing nothing which will tend to encroach upon the rights, or wound the feelings of any unoffending person. Now, as we understand, the chief point of difference between intellectual man and the less fortunate creatures consists chiefly in the more rational and deliberate conduct of the higher classes, we must consider persons who wantonly persist in the indulgence of habits which impair the mind and endanger the health as in some degree irresponsible.

It is generally admitted that inebriety is a manifestation of mental disorder that characterizes in fact, if not in law, those who are mentally disordered *i. e.* those who have not the sense of moral responsibility sufficient to resist the indulgence of an abnormal taste for what may lead to the complete inability of the person to undertake any mental operation involving the exercise of the power of reasoning.

The best informed observers are begin-

ning to conclude that those diseases characterized by inebriety, as it is manifested mainly in a somewhat milder form of mental irresponsibility, which leads the victim to the cultivation of a taste for certain drugs, as tobacco, opium, hashheesh, etc. The arsenic eaters, the clay eaters, the opium eaters, the opium smokers, the tobacco chewers, and tobacco smokers all belong to this class of mentally irresponsible persons. They well know that the indulgence of such habits in no way promote health or strength. That they lead to the development of abnormal tastes, fancies, and passions; that there is no possible value ever returned for the indulgence, and that the least harm they can reasonably expect to come from such indulgences is the establishment of a disgusting habit, which it will in time be exceedingly difficult, if not impossible, to break up or to resist.

If the persons who contaminate the atmosphere in those smoking assemblies, some times miscalled medical societies, would take the pains to make sphygmographic tracings, before, during, and just after the indulgence, much valuable matter for the entertainment of those now so obtuse as to be beyond the pale of reason might easily be obtained. The person who smokes tobacco in the crowded streets, in public assemblies, and in public conveyances, seems so utterly void of any sense of moral responsibility that he takes no notice of the large number of persons present who are nauseated, made sick, and faint, and some who are seized with irritative cough and dyspnœa, but goes right on with the reckless unconcern of a veritable lunatic.

<p>DR. LINDLEY ON M'KENNA WHISKY.</p>	<p>Dr. Walter Lindley, of the <i>Southern California Practitioner</i>, delighted us for a few</p>
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moments with his genial presence in Louisville, on his way East, although his visit was far too brief to satisfy the interest he awakened here. When he got to New York

he made haste to announce he was under social obligations to the editor of PROGRESS. Returning to California, he says: "Dr. Dudley S. Reynolds, of the PROGRESS, says a certain whisky is the best I have ever seen. This leaves the anxious public to infer that the Kentucky editor forms his opinion of whisky by looking at it, or that he has tasted every variety of whisky that he has seen. *Quien sabe.*"

Now we would like to know if Dr. Lindley means in this way to convey an account of his personal experiences with Mr. McKenna's whisky, and to insinuate at the same time that his judgement of it was not formed like our own, by sight alone? Dr. Lindley should know that the fountain from which McKenna's whisky flows is not the Pierian spring, albeit shallow draughts may intoxicate the brain.

KINGSLEY
AND COYLE
vs. DENTAL
EDUCATION.

Norman W. Kingsley, president of the New York State Dental Association, comes out publicly with the

announcement that dentistry is a distinct, separate, and independent profession, in no way allied to the profession of medicine. According to this view, the dentist is a mere mechanic wholly irresponsible as to any vital relationship between the teeth he plugs and the nerves and blood-vessels which supply them with nutriment, as well as the attached soft parts and bony socket in which they grow.

Mr. John H. Coyle, of Thomasville, Ga., concludes that the demand which he recognizes as being general for a higher education of dentists "evinces too great a play of the imagination, unduly excited by an exalted admiration of the medical education." According to his view a dental education consists in its most perfect form of such a course as shall qualify the practitioner for the following duties:

1. The arrest of caries by filling or otherwise.

2. Extracting teeth and controlling hemorrhage.

3. Regulating teeth.

4. Treating and filling root canals.

5. Treating odontalgia.

6. Prevention and cure of alveolar abscess.

7. Removal of salivary calculus and cleaning teeth.

8. Treating diseased gums.

9. Restoring lost teeth.

He proposes to "cull from medicine all that is possible concerning anatomy, physiology, chemistry, and general pathology. On all general points of practice, such as ætiology, histology, special pathology, therapeutics, and prophylaxis, medicine is as silent as an Egyptian mummy."

Does this mechanic comprehend the relations of all those conditions which impair the general nutrition of the system to corresponding derangements in the nutrition of the teeth? Has he ever been called upon to treat the gums of a person affected with scorbutic disease? Does he know the influence of constitutional blood-taints upon the development of the teeth? Has he studied the odontalgia of neurotic people, and is he acquainted with the causes of such neuroses? Is he familiar with the nature of morbid growths in the alveolæ, and does he know any thing of the *oidium albicans* or *leptotrix buccalis*? The outbursts of indignation with which Kingsley and Coyle attempt to resist the natural dependency of educated dentistry upon general medicine shows plainly enough how very much they need a little more medical education, and with what poverty of resource they attempt, mere mechanics that they are, to discuss any question of scientific education. Kingsley assumes the air of a ward politician, and offers to vacate his office of President of the New York State Dental Association if some one will prove his want of honesty and sincerity.

The dental profession can not afford to support such *clap trap*.

LET US PRE-
PARE FOR THE
CONGRESS.

The time has come for actual work in preparing papers to be read at the approaching International Medical Congress to be held at Washington, D. C., September 5, 1887. American physicians, and especially those who practice in the great Mississippi Valley, owe it to themselves and to the profession to prepare at once some suitable contribution of research or observation, or both, to read at the Congress in the meetings of the sections.

It has been publicly charged that no important intellectual activity exists in the Mississippi Valley, and it has been charged also that we depend upon the great intelligence of those gentlemen who had the vulgar presumption to claim authority to organize the preliminary arrangements for this congress without consultation with the profession at large for all the respect entertained abroad for American medicine. Let us be up and at work. Let us welcome the intelligent and learned men of the profession in Europe to an intellectual treat, by providing for their discussion such practical questions as will prove us to be men of energy of mind as well as body.

Dr. John B. Hamilton, Secretary General of the Congress, Washington, D. C., is the proper person to address.

RECORD AND
REPORT YOUR
OBSERVATIONS.

The time for recording observations is not to be delayed, lest it be lost. The time to publish them is when they are new.

Very few diseases have been exhaustively studied, either in etiology, course, termination, or the indications presented for treatment. Just think how much has been added to the science of medicine by studying the changes that occur on the surface of the cold boiled potato, and how much has been done to advance the success of surgery by collecting air dusts. Who is so poor in his capacity for observation as not to be able to

The time has come for actual work in preparing papers to be read at the approach-

add something to the science, and in that way enrich the art of medicine? It is every man's duty to work, and PROGRESS offers a medium for the diffusion of the results of every honest endeavor in the ranks of the medical profession.

THE MITCHELL
DISTRICT MEDICAL SOCIETY
OF INDIANA.

The meeting of December 30th and 31st was one long to be remembered by those who had the good fortune to participate. The meeting was called to order at 2 P. M., and again at 7 P. M. At 9 P. M., in the worst weather that a Western sleet can produce, the Society adjourned to a banquet given by the Lawrence County Medical Society. The people, as well as the profession, turned out in great numbers and celebrated the event in the most generous and hospitable manner.

The papers read will all appear in PROGRESS for February.

THE MISSISSIPPI
VALLEY MEDICAL
ASSOCIATION.

To meet at Crab Orchard
Springs, Ky., July 13th,
14th, and 15th, 1887.

The Committee of Arrangements has secured half fare rates at the Crab Orchard Springs Hotel, and the President of the Com-

pany, Major Wm. T. Grant, desires us to say he will be able to take care of all who attend the meeting. The Society will be called to order at 2:30 P. M., the second Wednesday in July, and it is hoped every regular medical society west of the Allegheny Mountains, both State and local, will send full delegations.

The Secretary, DR. J. L. GRAY, 1558 WABASH AVENUE, CHICAGO, ILLINOIS, desires every one who contemplates reading a paper at this meeting to send to him the title at once, as he is now engaged arranging the programme for the regular exercises.

The season is rapidly approaching, and those who wish to be on the programme should send in their names to Dr. Gray as soon as possible.


PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

OF INTEREST TO OUR READERS.

It is the fashion now-a-days to offer premiums; it ought not to be so, and yet one must follow the fashion.

Both students and doctors are ready enough with their own names as subscribers to PROGRESS, and we have a constituency to be proud of, and yet we are not satisfied, and beg to say *to you*, that for a canvass among your friends, resulting in the sending to us of ten new subscribers at regular rates, \$2 per annum, for each name, we will forward our regards, carriage paid, in the shape of a copy of the PERSONAL MEMOIRS OF U. S. GRANT, 2 vols., nearly 1,300 pages, bound in cloth, the original work sold (only by subscription) at \$7, and published by Charles L. Webster & Co., New York, 1886.

 *This work has never been on sale, and is not purchasable at book-stores.*

CALIFORNIA WINES, ETC.

Messrs. Baer & Germain have recently filled orders for many physicians in this vicinity, and they have been cordially recommended to us as well worthy the attention of those who value purity and excellence more than a foreign label. See advertisement and mention PROGRESS.

A. WILKES SMITH, M. D., D. D. S.,

Dean of the Faculty of the Louisville College
of Dentistry,

Commencing with the next (February) number of PROGRESS, will edit a special department in this journal devoted to Dentistry. A specimen copy of the magazine containing this new departure will, during the year, be placed in the hands of every Dentist and Student of Dentistry in the South and West. Advertisements relative to Dentistry will be printed in connection with the Dental Department, and apart from purely medical announcements.

AS TO THE EFFICACY OF COCA PREPARATIONS.—(By H. Liebermann, M. D., Paris, Surgeon-Major, Officer of the Legion of Honor, etc.)—I desire to state for the benefit of my colleagues the results which I have obtained during my long career as military surgeon by the use of *Vin Coca Mariani*. Briefly stated, I have used it with the greatest success in profound senemia, resulting from long arduous campaigns in tropical countries, and in the gastro-intestinal irritation with loss of appetite and dyspepsia, which is such a frequent accompaniment of this condition. Two or three wine-glasses of *Vin Mariani* each day relieved the debility with wonderful rapidity, inasmuch as the tolerance of the stomach for nourishing food and the appetite were restored by its administration. Mariani's wine is vastly superior to the wine of quinia, since the latter, by augmenting the gastro-intestinal irritation, interferes with alimentation, and consequently with repair, thereby aggravating the anemia instead of ameliorating it. I have also employed it in those cases of chronic alcoholism, fortunately rare in the French army, which follow the abuse of absinthe and strong liquors. Mariani's wine, while producing primarily a certain amount of cerebral stimulation, exercised a predominant sedative effect upon the nervous system. I have, moreover, witnessed the spec-

tacle of hardened drunkards giving up their pernicious habits and returning to a normal condition under the influence of this treatment. I have also employed Mariani's wine successfully in the treatment of the tobacco habit. A few glasses of the wine, taken in small swallows or mixed with water, were sufficient to replace both pipes and cigars, since the patients obtained the cerebral stimulation which they sought for, albeit unconsciously. I have also employed it in chronic bronchitis, and even in pulmonary phthisis. Mariani's wine augments the appetite and diminishes the cough in both these conditions. When combating the cough I have given it mixed with water, a wine-glass of the wine to a tumbler of spring water. Finally, I have employed it in the convalescence following typhoid fever with the greatest success, and this in cases where the irritability of the stomach was so great that no wine, not even Bordeaux, could be tolerated. To recapitulate, I am convinced that Mariani's wine is the most potent arm which can be placed in the hands of the military surgeon for the purpose of combating the sickness, infirmities, and vicious habits engendered by campaigning and the hardships of military life. I will also state that whenever any other than Mariani's preparations of Coca were used the results intended were not produced; quite the contrary; bad effects and even unpleasant complications were noticeable, and to this I call the special attention of the physician.

DR. HARVEY, of Anchorage, has a "For Sale" advertisement in this issue, to which we refer our readers.

MR. PHILLIPS, of Atlanta, Ga., who has many friends among our surgeons and professional friends generally, advertises in PROGRESS.

QUEEN & CO. 924 CHEST. ST.



PHILADELPHIA, PA.

A copy of the PERSONAL MEMOIRS OF U. S. GRANT, free of cost. Read our notice OF INTEREST TO OUR READERS.

It is a well-known fact that there are druggists in every large city who are not to be trusted with the filling of a prescription that calls for any expensive drug. They come and go, so that at last physicians are compelled to designate certain of the drug fraternity as trustworthy, and insist upon their patients going to these alone for their medical supplies. If they fail to do this, their work is thrown away and their reputations go with the failure of their remedies in critical cases.

A few cases from actual observation and experience will illustrate this better than a volume of argument.

1. Thirty grains of quinine, in three doses, to be taken at hourly intervals, were prescribed for a young man suffering from ordinary intermittent fever. The doses were taken as directed, but no signs of cinchonism were induced, and the disease progressed without change. The same doses, in "Warner's sugar-coated pills" were ordered, with the effect of inducing well-marked cinchonism with cure of the disease.

2. In a case of profuse menorrhagia, one ounce of fluid extract of ergot was ordered, with directions to take one fluid drachm every hour until the hemorrhage ceased. The entire amount was taken without result. An ounce of "Squibb's fluid extract of ergot" was ordered—same directions, and the flooding ceased after the second dose.

3. Four ounces of a mixture of bromide of potassium and chloral, each an ounce, with tincture of hyoscyamus and fluid extract of cannabis indica, in appropriate doses, were ordered, with directions to take one teaspoonful every hour until sleep should be induced. An ugly, muddy mixture was received, which produced nausea and headache, but no sleep.

A similar prescription, instead of the above

extemporaneous officinal combination was ordered; only "Battle's BROMIDIA" was designated, which induced refreshing sleep after a few doses of from twenty to thirty drops had been taken [*extract from an article in the Dec. Med. Brief, by William B. Hazard, Prof. Principles and Practice of Medicine, Col. Phys. and Surgs. St. Louis*].

It is only within very recent years that the medical profession has had at its command pure digestive ferments, and during that time their value and importance have become thoroughly well recognized. Their introduction, as well as the introduction of pre-digested foods which may now be prepared by their use, may fairly be deemed to be one of the most practical and beneficent features of modern medicine.

The medical profession, we believe, has generally recognized that Messrs. Fairchild Bros. & Foster have been the pioneers in the isolation and practical application of the digestive ferments, both of the stomach and of the pancreatic gland.

We were pleased to notice in a recent number of the "Druggists' Circular" that the superiority of the Fairchild pepsine was plainly demonstrated in a very interesting and important series of experiments made by Dr. Eccles, which were described in his paper, "A Study of Pepsine, and a Study of Peptonization."

If pepsine, or the digestive ferments are worth prescribing, it is certainly of first importance that physicians should know which are valuable and which are not.

Dr. Eccles has done a good work by affording valuable data and valid grounds for selection of reliable digestive ferments.

TWO CASES OF DYSMENORRHEA.—First.—Young married woman with extreme dysmenorrhea—examination revealed a lacerated cervix (this trouble was consequent to parturition) and an aggravated endometritis. Treatment was given for one month, consisting of local applications, and in the internal administration of Aletris Cordial. Patient positively cured, much to my surprise, as my prognosis was far different.

Second.—Girl, fifteen years of age. Commenced to menstruate at fourteen. For nine months previous to treatment had not been

free from pain in lumbar region. A scanty coffee-colored flow, attended with intense pain, at irregular intervals. Cephalalgia, nausea, and constipation superadded had rendered her peevish, melancholy and anemic. Administered one bottle of Aletris Cordial, teaspoonful doses, quieted pain with suitable analgesics, and in two months discontinued all treatment—heard from her as follows: Had menstruated once with scarcely any pain, the color was normal, her lumbar distress had disappeared and color was returning to her cheeks. Can highly recommend the Aletris Cordial and shall expect great results myself.

H. S. DRAKE, M. D.

Middleboro, Mass.

CHERRY MALT.

To physicians who have never tried Liebig's preparation of CHERRY MALT as an invigorator and stimulant, we cordially commend it; delicious to the taste, its effects are almost immediate, and not only beneficial, but very pleasant. A trial will prove the truth of our recommendation. Mention PROGRESS when you write.

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DR. F. E. YOUNG, of Canton, Ohio, advertises his operating chairs in this issue. We shall call more particular attention to his manufacture in our next number.

LOUISVILLE, KY., Nov. 1, 1886.

Messrs. R. A. Robinson & Co., Louisville, Ky.:

GENTLEMEN—For a number of months I have been prescribing your "Syrup of Hypophosphites" and have also been employing your "Wine of Coca" since it was placed before the profession. In my prescriptions I have specified "R. A. Robinson & Co.," because of my confidence in the integrity of the manufacturers; feeling assured that they would permit no indifferent compound to be prepared at their laboratory. After having observed the effects of the above preparations on a large number of patients, I am convinced that no similar mixtures, now upon the market, are so elegant and palatable, and at the same time so invariable and accurate in composition.

Respectfully your obedient servant,

JAMES M. HOLLOWAY, M. D.

728 Fourth Avenue.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN-
TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND
ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES-
SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF,
AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT
MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE
SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION
AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., FEBRUARY, 1887.

No. 8.

GENERAL MEDICINE.

EPIDEMIC

DYSENTERY.

SOME CLINICAL NOTES BY

STEELE BAILEY, M. D.

STANFORD, KY.

It was my pleasure to read to this Association at its April meeting, in 1884, a history of an epidemic of malignant dysen-

tery, which made its appearance in Lincoln County, in the family of David Pepples, in the month of October, 1883, and lasted until the January following. An attempt was made in that paper, which was printed in the *Louisville Medical News*, August 16, 1884, to give the cause for the epidemic. I stated that while impure water ranks high in the etiology of dysentery, perhaps it is not always the prime factor, and that in this instance we had added to foul water that which doubtless contributed to its malignancy—malarial complications—emanating from the surroundings. During October and November, 1886, it was my lot again to encounter a like endemic, though located in a different part of the county, circumscribed and equally fatal. The factors were so many, in common with those met with in 1883—the water, the soil, the temperature, the season—that I imagined you would not consider it a trespass if I enumerated and compared the etiology of this endemic with that noted four years ago.

The two white families, in which the disease first appeared, were very close neighbors, and the water they used for drinking and culinary purposes was procured from

contiguous surface wells. These folk live eight miles southeast of Stanford, bordering the knobs. Their houses are bounded in two directions, west and south, by an approximate swamp. There is no stream of water close at hand. The region is hilly; the soil is sandy surface, which absorbs and retains water with great tenacity; its porosity allowing the transference of air from long distances. Corn and other cereals grow fairly well under good cultivation, but the grasses are of the sage, crab, and other wire varieties, and during the growing season they flourish luxuriantly, and furnish a large amount of organic matter to slowly decompose. From this neighborhood, extending into Crab Orchard and beyond into the counties of Rockcastle, Laurel, Whitley, and Knox, in and about Jellico, and into the mountains of East Tennessee, dysentery was epidemic during the summer and fall of 1886, and in some parts it swept the country like a besom of destruction. In Casey County, I am told, the mortality was fearful. It may be well to recall the fact, as this is one of the points I desire to make, that the topography of the Dix River country, the site of the previous endemic mentioned, coincides in many particulars with the district traversed by this endemic, viz: in the growth of timber, in the rocks, and especially in the character of the soil. Dolins and Boone live at the foot of "Poynter's Spur," one of the highest points in the county. The foot hills hereabouts are but a continuation of the range beginning at Mul-

draugh's Hill, and continuing, with a few breaks, into the mountains. The kind of water is alike in the whole knob country, and our part of it is noted, in the drouthy seasons, for furnishing impure water. Occasionally an elegant spring is run across. And while the knob and mountain folk are the most hospitable, they, like many others, have not cultivated the art of dining, and the laws of the gullet. With a majority the cookery is indifferent and lacks variety, the frying-pan being very familiar in their dietetic regime, and it has destroyed hosts. But Sir John' Pringle says true dysentery was never induced by what a man puts in him. Why may not bad food be a factor?

Doubtless you remember that in 1884, in the mountainous portions of Kentucky, Virginia, and Tennessee, dysentery prevailed with terrible mortality, and a commission was sent to examine into its causes. They laid the trouble to impure water.

The memory of an old-hill-countryman goeth not beyond the time when he could tell you of the "bloody flux" which had occurred at varying intervals, during his time, and been a most potent enemy. The soil, the water, the diet, the season compose the cause.

The drinking water, holding in solution decomposing animal and vegetable matter, played an important part in the production of the disease in the East End last fall; and there was superadded a miasma, which was without that marked periodicity characteristic of malaria, but which had a lurking power like a fury.

Authorities are not agreed as to the possibility of infection by means of air-poisoning, but there is quite a unanimity when the origin is attributed to certain peculiarities of soil, and from my restricted observation I am inclined to the opinion that there is a hypothetical miasma of dysentery which lends to it malignancy as there is a hypothetical miasma of malaria. By no means are they identical, and no one knows whether they are gaseous or corporeal, but

both depend on animal and vegetable material in swampy land, or other moist locality.

True dysentery, Ferguson says, is the offspring of heat and moisture, or of moist cold after excessive heat. This may apply to the propagation of the sporadic type, but not to the epidemic.

From the foregoing we are to understand that the active agents of causation of epidemic dysentery are want of attention to hygiene, and to impure water; that it is a product of moisture and organic decomposition in soils—peculiar soils, from which is generated a poison which affects through the blood the glandular apparatus of the large intestines.

A striking feature of this disease, as seen in the Dollins family, was the severe gastric irritation, the ejecta being composed chiefly of viscid, glairy mucous, which forbade any and every thing, per orem, and continued, at varying intervals, in some till they were on the point of collapse. This is trying on the medical men. I thought so often of the famous Shakespearean quotation: "If to do were as easy as to know what were good to do, chapels had been churches, and poor men's cottages princes' palaces." Hypodermatic medication was resorted to, giving rest from abdominal pain with morphia; and by means of quinia, partially controlling chilliness and high fever.

My resources failed me in the treatment of the nausea and vomiting.

TREATMENT.

As to the treatment of epidemic dysentery there is no specific, and the course to be pursued is purely empirical. Than the present, there has been no period in which a greater number of reckless assertions have been made in reference to "specific remedies," and the disease under consideration is a "plucked plum" for which countless remedies have been suggested.

Our crude pathology delights in new remedies, or remedies with new names, therefore the prudent will exercise caution and hold fast to the good, if it be old. Epidemic dys-

enteries being enumerated among miasmatic diseases, and essentially infectious, and clearly depending for its propagation upon local causes, the inference is plain—administer those remedies which experience has taught are beneficial.

There can be no routine. The famed ipecac may find a place in sporadic dysentery, but in the epidemic disease there is usually too much gastric disturbance for its employment. Permit me to relate briefly the clinical history of Laura Dollins, and the treatment given her. This was a typical case in a very healthy girl, sixteen years of age, the second in her family to sicken and to die. Two days before the death of her brother, whom she had faithfully nursed, she complained of laxity of the bowels; the secretions consisting of altered biliary matters, with an occasional streak of blood, the diseased process being then in the upper part of the intestines. The day he was buried, her symptoms, augmented by mental distress, were serious. The peristaltic movements were violent, irregular, and spasmodic; there were shifting pains and urgent tenesmus; the stools consisting almost entirely of pure blood. The vomiting was distressing, and almost incessant, for three days, which prevented the administration of remedies *per orem*. Iced drinks, rice water, and the mucilage of elm were given at will. Ice compresses to the abdomen were very agreeable; but when spasm was present hot applications gave ease. We used morphia and atropia hypodermatically to give rest and sleep. For the first few days the fever seemed to be of the remittent type. The temperature in the hours of the morning varied from 101° F. to $102\frac{1}{2}^{\circ}$ F.; later in the day, and at night, the register would show one or two degrees higher. I saw the fever at 105° F. on the sixth night of her illness. The weather was very hot, and the air in her small room stifling.

As the disease progressed, the exudative matter resembled the washings from putrid

beef, mixed with blood and pus. The disease now had evidently passed the ileo-cæcal valve and extended into the small intestine. The belly was tender and tympanitic. The stomach now permitted her to partake of meat broths; but the mouth and tongue were dry and encrusted, sordes covered the teeth and gums, so that which she ate was taken mechanically. Headache and delirium were observed during the night; the countenance was an ashen hue, with a red spot in the center of each cheek; the attendant fever was now like typhoid. Liquid belladonna leaf, the normal liquid of Parke, Davis & Co., commencing with two minims and increasing to five, six, or seven minims, gave me more satisfaction, and, I think, the patient more relief from the nausea than any thing else.

The stools were frequent, and the pain was cruelty personified. The mind was clear, and a recklessness, which, upon being inquired after, she referred to the impending doom. The variations in the thermometrical method, on the tenth, eleventh, and twelfth days, were slight, but the pulse-change was very observable—a change produced in the nutrition of the cardiac muscular structure from the high temperature.

On the fifth day, even, a skilled finger would bring out the fact that many intermediate pulsations had been overlooked, and while there was less frequency of the pulse at that period, it presented the dangerous quality of varying in force from moment to moment, and that in an unrithmical manner. It seemed that each day brought increased tendency to stool; the thirst, restlessness, and jactitation were extreme.

The inclination to vomit, on the thirteenth and fourteenth days, was still present, and a bluish fluid came at each effort. The physical distress was great; she was the picture of anguish and despair. The vital powers were depressed beyond the system's recuperative capacity.

Every line of therapeutic attack had been

futile. Gasping, she rose into a sitting posture the better to get her breath, when suddenly a heart-clot formed, and she expired.

As a general thing, in the treatment of the eleven cases, I endeavored to remove spasm and reduce inflammation, and searching the literature of the subject, which is enormous, and hearing in turn the praises of indigenous materia medica, as well as that of foreign growth. I am settled in the belief that there is nothing comparable to that treasure-trove, opium, and its derivative compounds. The others have gone, like Jonah's gourd, which came up in a night, and perished in a night. A single case terminated very happily (though it had commenced with some violence) from the administration of thirty grs. of hydrate chloral, in conjunction with half an ounce of Epsom salts. He awoke from a long nap, ate mutton broth, remained at rest two days, when he had no further trouble.

In the preliminary stage the same principles of treatment are of service as in idiopathic dysentery; but a more direct one is soon called for, the disease quickly assuming dangerous symptoms.

With the temperature elevated, and the saliva limited in secretion, plenty of fresh air, iced drinks, and the farinaceous elements of food, given in an assimilable form (and nothing is better than arrow-root), constitute excellent treatment; much better, especially when there is gastric distress, than any food containing fats, which is often repugnant.

When the stomach permitted, animal broths were given, and as the patient advanced into full convalescence, I fed him, not by mathematics but by gastronomy, exercising, however, a healthy caution.

In one of my patients imprudent indulgence brought its own punishment; a relapse. Milk, to her, was repulsive, therefore an exclusive diet of beef peptonoids was recommended, under which her health was fully restored.

TYPHOID FEVER.

GANGRENE

OF THE FOOT.

BY

W. J. PURKHISER, M. D.

[Read to the Mitchell District Medical Society,
December 31, 1886.]

N. H. Elliott, æt. 22, single, by occupation a farmer, was attacked August 3, 1882, by typhoid fever. He was of strumous habit, and had been a constant sufferer from all those catarrhal dis-

eases that result from the scrofulous cachexia. The fever pursued a typical course, and was attended by no untoward symptoms until September 15th, when he was convalescent, and considered by his physician able to be transferred in a vehicle twelve miles in the country to his home, at which time he came under the observation of the writer.

The worry from the trip was not so great as was anticipated, and convalescence seemed to progress uninterruptedly until September 29th, when he was *siezed by a chill* and rigors, which was succeeded by an axillary temperature of 104.5° Fahr., continuing for twenty-four hours, when it fell to 102.5°, and so remained, with slight fluctuations, throughout the remaining course of the disease.

Simultaneous with the chill was acute lancinating pains along the course of the great sciatic nerve of both lower extremities which were described by the patient as shooting, darting, tearing, etc. Both extremities soon became swollen, tense, and oedematous to mid-way between the ankle and knee-joints, and in the left the condition was more marked than in the right. The feet were cold, and covered with purpuric spots, varying in size from that of a half dime to that of a half dollar. At the end of a week the inflammation in the right foot had subsided, and the member had regained its normal condition. The left however still remained swollen, tense, oedematous, purpuric, and very painful, the patient frequently crying aloud from its severity. The posterior tibial artery could now be felt, thickened and velvety, and the pulsations were faint and wavy, and gradually grew weaker until

they could no longer be discovered, and the artery could be traced by the finger as a nerve cord, which was hard and painful on pressure. The foot and ankle assumed a dull brown or mulberry hue, and was covered with large blibs, containing a serum-like fluid, upon the discharge of which the cuticle was soon removed, leaving a quasi-granulating surface, which would bleed on the slightest touch. The sight of the blibs became gangrenous ulcers, pouring out a foul-smelling, ill-conditioned ichor. The foot became much distorted, and the tarsal and meta-tarsal bones were entirely denuded of flesh on their plantar aspect, and the phalanges were exfoliated. The connecting ligaments between the tarsal bones were almost entirely destroyed, so also the tarso-meta-tarsal union. These bones were undergoing a condition of caries and necrosis, and an enormous quantity of pus poured out from and around them.

The general condition of the patient was now appalling, extreme emaciation, a high temperature, a flagging heart, insomnia, anorexia, nausea and vomiting, excruciating pain, and an intractable diarrhea were the omens of impending dissolution, which was averted, as it seemed, almost miraculously until February 13, 1883, when the line of demarkation was obvious at the junction of the lower with the middle third of the leg.

Notwithstanding the condition of the patient seemed to forbid an operation, a surgeon was called, and amputation was done at the junction of the middle with the upper third of the leg. The shock from the operation was comparatively nothing, and the patient made a rapid and good recovery, without a single untoward symptom.

The muscles of the stump, after amputation, were lighter in color than normal, flabby, and seemed to have undergone partial fatty degeneration. The lumen of the arteries were decreased in size, due to the infiltration of their walls with inflammatory material. They were friable and easily broken down by traction with forceps.

The lumen of the arteries in the amputated member were entirely obliterated to a point above the line of demarkation to which a thrombus extended; below this point the artery was a new cord, and was not perceivable. The tarsal and the meta-tarsal bones had undergone a kind of caries and necrosis, the periosteum was entirely removed, and they would fall from their connection with each other on touching the slight remains of connecting ligaments with a bistuary.

The cause of this condition of arterial obstruction and obliteration in the extremities, occasionally supervening on typhoid fever, and resulting in gangrene, has elicited an amount of investigation and discussion commensurate with its importance as a clinical entitis.

Some writers, adopting the theory of Hayem, as Eastlanden, of Germany, have tried to prove that this gangrene is due to thrombosis of the arteries, the result of a cardiac embolus, but the heart, it has been proven, is frequently, if not always, healthy. In support of this opinion Eastlanden has reported thirty-one cases coming under his observation, twenty-five of whom were males, and six females. In only twenty-one of these cases could a full investigation of the pathological anatomy be obtained, and in fourteen of these there was found a thrombus in the main artery of the limb, but in the remaining seven no thrombus was found. More recently, however, Dr. Barié has published a paper, in a French medical journal, which goes far to prove the theory already expressed by Patry, in 1863, according to which the obliteration is due in nearly all cases to endoarteritis. Dr. Barié, basing his conclusions on careful observation and necropses, states that typhoid fever may produce two forms of endoarteritis: 1st, the obliterating, and 2d, the parietal form. Both are characterized anatomically by an infiltration of the coats of the artery by embryonic cells, the internal coat loses its polish, and in the obliterating form the blood

coagulates at the diseased point and occludes the vessel, but in the parietal form small clots are found in the internal coat, but circulation is not arrested.

These conditions, according to Barié, are due to an inflammation, primarily of the intima of the arteries which extended to the outer coats, and to a vaso-motor paralysis, consequent on the presence of micro-organisms in the blood.

The case reported is unique, and is an illustration of both the parietal and obliterating forms of the disease, that the parietal form tends to resolution and recovery, and that the obliterating form results in gangrene, and that an operation for which may prove successful under the most adverse circumstances.

TYPHOID
FEVER,
ERYSIPELAS,
GOUT.

BY

JOS. C. PEARSON, M.D.

[A Clinical Report to the
Mitchell District Medical Society, Dec.
31, 1886.]

Mrs. A., æt fifty, the mother of three children, was taken, on June 20, 1886, with languor, debility, anorexia, and headache for several days, with bleeding at the nose, bronchial cough. When she took to her bed, having fever of

considerable violence, temperature 102° in the morning and 103° in the evening; face flushed; sleep disturbed; more or less muttering, wakeful and delirious at night; at the end of the first week tympanites diarrhea, ochre-colored dejections. Near the end of the second week lenticular spots appeared, few in number, over her abdomen. These spots disappeared under pressure; they continued for eight or ten days. Toward the end of the third week there was tenderness over the right iliac region, on pressure, with gurgling under the hand; sudamina to a slight extent over the chest; pulse dicrotic; subsultus tendinum; retention of urine; dullness of hearing. About the middle of the fourth week this patient was, to all appearance, convalescent for

eight or ten days, when she relapsed, and all her former symptoms were reproduced with greater severity than the first, which I regarded an unfavorable augury, requiring increased care on the part of her attendant, who at this time was complaining of feeling an ill-defined coldness, finally resulting in a chill, followed by fever. I at once decided that I had a second case of typhoid fever to pull through.

On the following day, when I went to examine this patient, to my surprise I found a cluster of vesicles on the anterior and upper part of the left thigh, extending up toward the body. This proved to be a case of erysipelas. The inflammation involved the subcutaneous cellular tissue, resulting in suppuration and sloughing of the skin on the upper part of the limb, which protracted the case and made it necessary for case No. 3 to come in as attendant to cases No. 1 and No. 2, in which capacity she served for four or five days, when she experienced indications of indigestion flatulence, acidity, constipation, and palpitation of the heart. About two o'clock next morning she was seized with pain in the ball of the great toe of the left foot, accompanied by shivering and feverish sensations, with great restlessness. The pain increased until it became intensely excruciating. The joint was so very tender that the patient could not bear the weight of the bed-clothes or the slightest jar of persons passing in the room. The pain attained its acme on the approach of evening, and about twelve at night a light sweat appeared on the surface, followed by such relief that the patient fell into a sound sleep. On awaking, she found the parts that were so painful and swollen of a deep red color, tense and shining. Thus for several days and nights she suffered, the symptoms assuming more and more a mitigated form, until the skin desquamated and the functions of the joint were restored.

If the case of Mrs. A. was typhoid fever, why should case No. 2 develop erysipelas and case No. 3 develop podagra? Typhoid

fever and erysipelas have their specific bacteria. I do not know so well about gout. I believe it is considered a diathetic or constitutional disorder. I do not understand this discrepancy, or the protean characteristics of diseases occurring under like circumstances in the same family, not varying in time of development. All diseased processes caused by living organisms, microbes or bacteria are, or can be, made subject to the same influences for their multiplication or development. We may possess individual germs subject to the same laws of increase and development, and we shall wait *sub silentia* for a more advanced knowledge of the history and the nature and development of these living organisms, microbes or bacteria.

Dr. Flint, in his *Practice*, on page 882, says, with respect to the contagiousness of typhoid fever, there has not been unanimity of opinion that it may be communicated under certain circumstances, and that it frequently, or generally originates spontaneously; that is, irrespective of contagion. Assuming these statements to be correct, this is one of the diseases, the special cause of which may be generated without the body and reproduced within the body. The contagiousness of typhoid fever is proven by instances in which persons having contracted the disease in one locality go to another in which the disease was not prevailing, and of the residents of the latter locality with whom they are brought into contact, a greater or less number become affected. Many instances of this kind have been reported.

Although this disease may be undoubtedly communicated in some way from the sick to the well, under ordinary circumstances it is not diffused by contagion; as a rule, it is not communicated to those who come into contact with private patients, nor is it propagated among hospital patients, thus differing widely from typhus fever. There is ground for the conjecture that when communicated, the special poison is derived

from the intestinal discharges. Dr. William Budd and others entertain the belief that the disease invariably proceeds from a special virus contained in the excreta; and they account for the prevalence of the disease by the dissemination of the virus in emanations from water-closets and privies and drains. In the diffusion of the disease at North Boston, the fact that all the families in which the disease prevailed were supplied with water from a common well, and the fact that the family in which no case occurred did not obtain water from this well, afford ground for supposing that a virus derived from the excreta was conveyed in the water, and that the alvine excreta are the media of communication. In the rare instances in which the disease is evidently communicated it is highly probable, but the doctrine that this is invariably the causation is inconsistent with facts which appear to show conclusively the spontaneous generation of the causative agent in the great majority of cases. Murchison cites several striking outbreaks of typhoid fever in localities in which it appeared to be fairly attributable to emanations from obstructed drains and cess-pools, or from drinking water tainted with sewage.

I am inclined to the opinion that Mrs. A.'s case was the result of drinking water taken from a cistern situated on a declivity of about twenty feet, leading from an old privy, which I thought sufficient, under ordinary circumstances, to establish a drain of the gaseous contents of the pit through the soil into the cistern. To me this view of the premises was sufficiently logical to justify me in taking this as a basis for the causative influence of the fever in Mrs. A.'s case. No. 2 had attended Mrs. A. in every particular; conveyed away her excreta, changed her clothing and bedding, sponged and bathed her frequently, and was untiring in her vigils for the space of twenty-four days, when she was taken with an ill-defined chill, followed by fever for three or four days prior to the development of idiopathic

erysipelas. Passive delirium and other ataxic symptoms, as well as the abdominal symptoms of typhoid fever were wanting. The course of the disease was somewhat irregular, and ended in about fifteen days.

In case No. 3 I failed to obtain any evidence of gout having been transmitted through the parents or grandparents. There being no predisposition or heredity in the case it certainly was acquired; the causative influence, anxiety of mind and bodily fatigue, marked the only appreciable exciting causes, as the patient had never been addicted to alcoholic liquors or high living.

HYSTERO
EPILEPSY IN
THE MALE.

BY W. J. PURKHISER,
M. D.,
OF LIVONIA, IND.

[Read to the Mitchell Dis-
trict Medical Society,
Dec. 31, 1886.]

September 21st, 1886, I was called in consultation to see G. McC., age twenty-four, white, and of Irish parentage. He possessed a well developed physique; and previous to this

attack had enjoyed uniformly good health. His nervous system was very impressible, as was evidenced by the fact that he was the slave of many of the superstitions of the colored people of the South, with whom he had lived and associated until recently. There could be traced no history of epilepsy or chorea in his family, but his mother was the subject of some of the graver forms of hysteria.

A few days previous to the attack he was working in a trench, when he imagined that he had sustained slight sprain (as he expressed it) of the spine, and for seven days afterward complained of an uncertain sense of discomfort referable to the lumbar region.

On the 18th day of September, when, in a state of mental agitation, he was discussing with some friends the relation he sustained to a certain young lady, he fell to the ground in a fit of vertigo, and became unconscious. The entire voluntary muscular system became convulsed first, and the posterior muscles of the trunk, and the flexor mus-

cles of lower extremities became rigidly contracted. The body assumed the arched position, but the opisthotonos was not marked. The attack lasted but a few minutes, after which he lay for a short time motionless, and seemingly unconscious of his surroundings. During the two succeeding days his physician informed me that convulsive seizures with opisthotonos were frequently repeated, sometimes as many as three or four occurring in an hour.

When I saw him on the 21st of September he was reclining on his couch engaged in a conversation with friends. He manifested that vivacious and exhilarated mood which is characteristic of some hysterical patients, and complained of nothing except a slight spinal irritation; expressed himself as otherwise comfortable, and was hopeful of an early recovery. His bodily temperature, circulation, and respiration were normal, as were the secretions and excretions, except there were obstinate constipation and retention of urine. Sensibility was normal except a slight hyperesthesia over the left side of the abdomen. In a short time, however, after we had entered the room, his countenance became pale and anxious, there was starting and twitching of the muscles of the face. Soon the forearm was flexed on the arm, and the arm held firmly against the chest in tonic spasm; the posterior muscles of the trunk and the muscles of the lower extremities became rigid, and he assumed the arched position, but the opisthotonos was not extreme. There was trismus, and he was entirely insensible to external impressions, as pricking the integument with a pointed instrument, or irritation of the conjunctiva. The application of ammonia to the nostrils only caused contraction of the orbicularis oris muscle. The circulation and respiration were slower than normal during and after the seizure, and the temperature was subnormal. The lips and tongue were not lacerated, there was no foamy saliva or spasm of the larynx. When the attack had passed off he appeared dazed,

and would for a short time stare vacantly, and mutter incoherently. He was unconscious of what had transpired.

The seizures grew less frequent and severe under treatment, and had entirely ceased at the end of ten days, and the patient has been ever since and is now in his normal health.

ARSENIOUS ACID
AS A PROPHY-
LACTIC IN
MALARIOUS
DISTRICTS.

One of the great difficulties encountered in malarious districts is to find an easy and convenient means of preventing the par-

oxysms of fever which so often disable artisans and laborers, and which at times render utterly unfit for service whole armies of troops.

Tommasi Crudeli has found, after much study, covering a very large experience, that arsenious acid in doses of one sixtieth of a grain has proven the most satisfactory prophylactic. The Greeks, Romans, and Arabs of Gaudaloupe have long inclined to rely upon the juice of lemons, prepared by cutting the lemon in small fragments and boiling it until its bulk has been reduced one half. It is then squeezed out from the pulp, filtered, and taken cold. The objection to quinine is that its effects are powerful upon the nervous system and transitory upon the bacillus malariae.

It is thought by many that malarious diseases prevail most frequently in winter, in consequence of the fact that during the summer large numbers of spore cells are blown into the house, and find lodgment upon the rough surfaces which, when the house is closed in the winter, the inhabitants are obliged to breathe large quantities of these spore cells, and the bacilli develop enormously, producing attacks of various forms of periodic disease. In summer the admixture of pure air is much greater, because people may freely go out doors, and the quantity of these germs taken into the air-passages must be relatively small.

GENERAL SURGERY.

FECAL
IMPACTION,
PERITONITIS,
PELVIC
ABSCESS.

BY
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On the 14th of December, 1886, I was requested to see Annie T., a bright and beautiful girl of twelve years. She had been ill for some time, and the history of the case, as given by her father, was as follows: On or

about November the 1st, 1886, she was taken with colicky pains, which did not yield to the ordinary domestic remedies, and a physician was sent for. He made an examination, and announced that she was suffering from *neuralgia of the stomach and bowels*. Remedies were administered which gave only temporary relief, the pains returning next day with increased violence. The attending physician now expressed the opinion that *worms* were the cause of the intestinal pains, and drugs were given to expel the *causus morbi* (*Helminthia Erratica*)(?), and to relieve the (*Helmintheasis*)(?).

No worms were discharged, but a diarrhea, spurious in character and containing mucus, ensued. (There had been previous constipation of an obstinate character.) There was slight fever with occasional exacerbation, accompanied by vomiting. The child made haste to get better slowly, and a consultation was requested, and held, the conclusion arrived at being that inflammation of the bowels existed. Shortly after this an *abscess* was discovered forming low down on the right side; attention being called to this by a slight enlargement, and some tenderness at this point. There was again obstinate constipation, and almost continued nausea, with some vomiting. Castor oil was given, and injections of warm water used; following this quite a large number of hard balls of fecal matter were passed from the bowels, and the *abscess moved* (?). This gave temporary relief, and the child was thought to be better. Soon, however,

it was discovered that the improvement was only passing, and that the little girl was, day by day, growing weaker and more emaciated.

On December 13th, the diagnosis was again changed, it being now announced that *tubercular disease* of the bowels existed, with no hope of recovery, death being a question of but few days. On the day following (December 14th) I took the case in charge, the attending physician having been dismissed. Examination revealed the following condition: Body much emaciated, skin sallow, abdomen distended and tender, the tenderness accentuated over the region of the sigmoid flexure. Palpation and percussion indicated at this point a distinct tumor, the size of an orange, seemingly extending into the pelvic cavity. Temperature, 101.5°; pulse, 120.

The attempt at rectal exploration gave rise to such intense pain that chloroform was administered. The finger having been introduced into the rectum no fecal matter was found, but the bowel was pressed down and occluded by a fluctuating bag, which entirely filled the pelvic cavity, extending above the uterus, and above and to the right of the sigmoid flexure. The diagnosis of fecal impaction with pelvic abscess was made. The abscess was emptied through Douglas' cul-de-sac; pus in large quantity and of bad odor being drained away, the drainage continuing in smaller quantities for several weeks. Carbolyzed vaginal injections of tepid water were used two or three times a day, followed by an occasional listerine injection into the vagina as deodorizer and disinfectant.

Three days after the opening of the abscess, following the use of copious enemata, the impaction was broken up; hard, round lumps of fecal matter, containing seeds and skins of apples, were passed from the bowel in large number. The tumor in the sigmoid flexure disappeared. After this there was manifest improvement, which would have been much more rapid, but unfortunately

the child had acquired the morphine habit, and was taking about one fourth grain hypodermatically every four or five hours, interfering materially with appetite, digestion and general nutrition. Considerable trouble was experienced in weaning the patient from her accustomed anodyne. The dose was gradually diminished, and the interval between lengthened, until finally it was discontinued altogether; the withdrawal of it causing insomnia, nervousness, amounting almost to hysteria, and much pain—either real or imaginary—gastro-intestinal in character, accompanied by diarrhea. The pains disappeared in a few days, as did also the diarrhea. Recovery from this time forward was rapid and without an untoward symptom. The patient was discharged on January 5, 1887, cured.

This was evidently a case of impacted bowel from the beginning, the overfilling having its origin in the ascending colon, near the cæcum, and was doubtless responsible for the symptoms which were thought to be those of neuralgia of the stomach and bowels, of worms, of inflammation of the bowels, and finally of tuberculosis (*Tabes mesenterica*). The abscess which was supposed to be forming near the cæcum was the tumor produced by the contents of the over-filled colon, and which under the use of castor oil and large enemata moved, part of the contents of the bowel being discharged by the rectum, and perhaps the larger portion lodging in the curve in the sigmoid flexure, producing local peritonitis, pelvic cellulitis, and finally abscess.

At the last meeting of the McDowell Medical Society (October, 1886), Dr. A. M. Owen, of Evansville, Indiana, called attention, in some forcible remarks, to the frequency of impaction of the colon, and to the many obscure symptoms this trouble gave rise to. He also noted the proneness of the average practitioner to overlook this overfilling and dilatation of the bowel, and to attribute to some other cause the manifold symptoms which follow in its wake.

Dr. Owen cited numerous cases, under his own observation, in which almost immediate relief followed the unloading of the impacted bowel. At a recent meeting of the Chicago Medical Society (*Medical Age*, October 11, 1886), a paper was read by Dr. J. S. Jewell, on this subject. Among other symptoms he calls attention to the fact, that "patients suffering in this way are liable to become *billious*;" in every or nearly all instances their "billiousness" could be traced to the gradual filling of the colon, and the disturbances produced from this cause in the digestive apparatus higher up. The secretions of the mouth are changed, the breath is bad, the unhealthy odor of the skin produced by absorption of fetid substances from the rotting masses in the intestines, together with the coloring matter in the same, gives the skin of the patient a peculiar dirty, sallow color.

The mucous membranes, where the fecal masses lie, are irritated, producing local catarrhs. The peripheral ends of the sensory nerves of the intestinal mucous membrane are irritated, and give rise to various forms of disorder. Headache, melancholia, lowering of the tension of the heart's action, thus giving a feeble pulse, oftentimes intermitting, and sluggish capillary circulation, producing as a consequence cold extremities. Insomnia and even epilepsy are attributed by Dr. Jewell to this cause.

The literature upon the subject of intestinal obstruction by the accumulation and impaction of fecal matter in the large bowel, is meagre in character and extent, and not such as its importance demands. In so recent and comprehensive a work as "Pepper's System of Medicine," so lightly is the subject touched upon that scarcely *one page* is devoted to it. Bristowe, in "Reynolds' System of Medicine," under the general heading of "Obstruction of the Bowels," speaks a little more at length. He says: "The retention of a mass from which gaseous matters are being constantly evolved, is necessarily productive of colicky

pains and imperative desire to discharge flatus; the constant pressure of a hard mass immediately above the anal outlet causes not only congestion of the mucous membrane of the part, but retard action of blood in the hæmorrhoidal veins, and ultimately piles." But much prolonged constipation leads sometimes to other and far more serious results, namely, to dilatation and hypertrophy of the intestine, ulceration of its mucous surface and perforation of its walls with extravasation of fecal matters into the peritoneal cavity. The dilatation is sometimes so great that the colon measures from nine to ten, or even twelve inches in circumference. It usually begins at a distance of one or two inches from the anus (which seems spasmodically contracted), and occupies more or less of the remainder, sometimes the whole length of the large intestine; in which latter case the chief distention is observed in the rectum, sigmoid flexure, and cæcum.

Hypertrophy of the muscular coat, which always accompanies dilatation, is general, but most marked in the sigmoid flexure and upper part of the rectum, where the thickness may be one eighth inch or more. When ulceration takes place, it is perhaps partly due to yielding of the mucous membrane from over-distension, partly to the constant irritation kept up by the fecal mass within. Perforation may "ensue, either while the constipation remains unrelieved, and then either through the progress of ulceration, or by laceration, or after the bowel has been emptied, in consequence of the continuance of the ulceration."

Treves ("Intestinal Obstruction") says: "The morbid condition that forms the basis of this form of obstruction is an insufficiency in the forces that move the intestinal contents forward. This condition may pass on to the absolute paralysis of a segment of the bowel, leading to complete arrest of the intestinal contents and symptoms of obstruction. In *ileus paralyticus*, *i. e.*, in absolute obstruction, to which such constipation may

lead, a considerable portion of the bowel is incapable of any peristaltic movements. Fecal matters collect in this segment and form a species of plug, which even vigorous action in the bowel above is not able to dislodge. The retained feces become more and more solid by absorption of their fluid parts, and the intestine below the obstructed segment usually becomes contracted if it be empty, and so offers an additional impediment to the progress of the contents. As the case progresses the paralyzed intestine becomes more and more distended, its muscular fibres are stretched and even ruptured, and the possibility of a restoration of peristaltic movement is rendered more remote. The condition may be further complicated by the development of chronic peritonitis, *starting about the paralyzed and distended part of the intestine.*"

It will thus be seen that the diagnosis of fecal impaction is of the first importance, and in cases presenting any of the above symptoms it would be well, at least, to bear in mind the possibility of an over-filled colon and to govern one's self accordingly. The method of examination as practiced by Dr. Jewell I can recommend, and is as follows: "The patient is stripped so that the abdomen is bare, the abdominal walls being relaxed. He then takes a plate of soft rubber, at least two inches in length, by an inch and a half in breadth, and one quarter of an inch in thickness, and a heavy steel hammer, quite as heavy as the surgeon's ordinary bone hammer. With this the abdomen is percussed carefully over the track of the colon from its origin, tracing it up under the liver, across and down to the sigmoid flexure. Thus percussing over the track of the colon, and carefully locating every mass of feces (even in persons with fleshy abdominal walls), he has been able to get at its course and contents."

Treves, in speaking of the diagnosis of such cases, says: "In all cases of obstruction by fecal masses, no matter what may

be their particular clinical aspect, there is very usually present a diagnostic feature of much importance, viz: *a tumor formed by the mass of retained feces.* This tumor is, as a rule, most readily to be felt in the cæcum; it is hard and uneven, of a globular shape, and is, as a rule, painless. Sometimes, however, the region of the tumor is the seat of much pain and tenderness, a circumstance that probably depends upon a little local peritonitis. In the ascending colon the tumor will possibly feel softer, will be cylindrical in outline. Masses in the transverse colon may, when near the hepatic flexure, give rise to the impression that the liver is enlarged, the extent of the dullness over that viscus being increased; masses in the transverse colon may cause the gut to become bent down, and the fecal tumor has, in such cases, been felt near to the symphysis; when in the descending colon, or sigmoid flexure, the fecal mass will usually feel harder, and its division into scybala may be detected. These tumors may exist unchanged for weeks or months, and may coincide with the passage or normal motions or with spurious diarrhea. They have been mistaken for cancer, for chronic intussusception, for tumors of the liver, stomach, spleen, and kidneys, for ovarian and other pelvic tumors, and for pregnancy."

Obstruction of the bowel by fecal accumulation is more common in females than in males, is most frequently met with in those who have passed middle life. It is very common in the subjects of hysteria, of hypochondria, and in the insane; it is also often met with in women after childbirth, being due to paralysis of the bowel from pressure. It is rarely found in children. One author (Allingham) going so far as to say that it *never* occurs in children. In this he is evidently mistaken, as I, myself, have treated quite a number of cases in children, three or four being under the age of twelve years. Various measures have been resorted to for the relief of this trouble, embracing the varied and extensive methods adopted

for the relief of constipation. Aperients are calculated to do harm rather than good. The main reliance should be placed in *copious* and repeated enemata. Many surgeons strongly advise carbonic acid gas enemata in these cases. Much good has also been effected by a proper massage, and by electricity. Perhaps the best treatment is that advised by Drs. Owen and Jewell, and used with success by myself. "A large bag-fountain syringe, holding half a gallon, is adjusted at a convenient height from the floor, the patient lying down in the knee-breast position. The fluid should flow with considerable force until it makes its way past the upper sphincter, which is at the lower part of the sigmoid flexure; pass one quart to one half gallon of water, according to the size of the colon, so as to fill the entire organ to the cæcum. In some instances a gallon of water may be passed into the gut without serious inconvenience to the patient, and half a gallon is a common amount to introduce. The patient is then directed to lie down on the left side, and by a proper massage over the ascending colon the liquid is moved with the contents of the bowel toward the rectum. This should be done once or twice in the twenty-four hours until the colon is clear." I have found that the use of a "Kolbe" rectal tube facilitates the introduction of the water. In not a few cases that have resisted all other treatment colotomy has been performed. The cases wherein this operation is actually demanded are very few, and the measure should not be entertained until every other mode of treatment has had patient and repeated trial. Treves further and justly says: "Lumbar colotomy for fecal accumulation must be regarded rather as a surgical misfortune than as a recognized means of treatment."

A CHILD with fecal impaction in the colon, treated unsuccessfully with ox gall and bismuth, sought other aid, and a copious warm enema wrought the miracle of cure.

CYSTS OF THE PANCREAS.

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[Am. Jour. Med. Sciences.]

CASE I.—Dixon (*Med. Record*, March 15, 1884) reports an interesting case of cyst of the pancreas, which terminated in death from compression of the bile-duct by the cyst. The patient was a male, forty-two years of age, who, during a period of three months, had suffered from three attacks of what seemed to be cholelithiasis before he came under the reporter's care. For the last ten days he became jaundiced. On examination a tumor was found in the region of the gall-bladder, about four inches in diameter, which fluctuated on palpation and ascended and descended synchronously with the respiratory movements, and received the impulse from the underlying aorta. The tumor was punctured and four ounces of a yellowish-red fluid removed which solidified on exposure to the air. Two days after the puncture the tumor was considerably larger than before. The patient's strength gradually failed, until he died, thirty-four days after the puncture. At the necropsy it was ascertained that the tumor was a cyst of the pancreas, with thick walls and light yellow mucous contents. The cyst occupied the head and part of the body of the pancreas and communicated with the ductus pancreaticus. The tail of the pancreas also contained a small cyst. The large cyst compressed the ductus choledochus in such a manner as to render it entirely impermeable. It is evident that in this case a removal of the pressure by operative treatment might have restored the health of the patient by removing the cause of obstruction to the natural outlet for the bile.

CASE II.—Reported by Riedel (*Archiv für klinische Chirurgie*, vol. xxxii. p. 994). A woman, forty-five years of age, noticed nine years ago a small tumor in the upper portion of the abdomen, which increased

slowly in size until a year and a half before she was examined by Riedel. After this time growth was very rapid, so that a great deal of pain and distress was experienced from the size of the tumor. When she was examined the abdomen was filled completely with a fluctuating tumor, the pelvis and the lateral regions of the abdomen were free. Laparotomy was performed August 27, 1884. The slightly adherent omentum was easily separated, the cyst was tapped, and about ten litres of a brownish fluid escaped. After evacuation of the cyst, the transverse colon could be seen immediately behind the symphysis pubis. The mesocolon had been separated with the omentum. The cyst was separated from the loose attachments with neighboring organs. Troublesome hemorrhage only occurred from the depth of the wound near the vertebral column, where a ligature *en masse* was applied and several vessels tied; the cavity of the wound, the size of two fists, was dusted with iodoform. Death from peritonitis after ninety-six hours. At the necropsy a portion of healthy pancreatic tissue was found ligatured with catgut. The interior surface of the cyst showed, for the most part, a smooth surface without epithelium. At different points it presented prominences which contained glandular tissue.

CASE III.—Reported by Salzer from Billroth's clinic (*Zur Diagnostik der Pankreas-cyste*, Prag, 1886). Female, thirty-three years of age, not married, was sick with typhus fever when she was eighteen years old. She stated that during her convalescence she noticed a swelling the size of a goose egg in the middle of the abdomen above the umbilicus which disappeared in a few weeks. Four years later the swelling reappeared in the same place, was the size of a fist, but little movable, and rendered the umbilical region prominent. The size of the tumor increased gradually until four years ago it had attained the size of a foetal head, and had descended below the umbilicus. A sensation of weight in the stom-

ach, vomiting, pain in the abdomen, were the most prominent symptoms during the last fourteen days. Menstruation regular. Before the operation a systematic and careful examination showed no disease in any other organ. Circumference of abdomen below the umbilicus, ninety centimeters. An unusually large vessel was detected in the abdominal walls in the left hypochondrium, which pulsated strongly, and over which, by auscultation, a bruit could be heard. Abdomen prominent, especially in the median line. On palpation the swelling was recognized as a round, smooth, fluctuating tumor, which was in direct contact with the anterior abdominal wall and could be moved slightly from side to side. Percussion dullness over the entire area of the tumor. Both lumbar regions resonant. Spleen and kidney dullness normal. A vaginal and rectal exploration showed that the cervix and uterus were pushed toward the right side, but movable. Behind the uterus a firm tumor could be felt. The diagnosis made at the time was unilocular cyst of the left ovary. Laparotomy was performed June 5, 1885. Median incision exposed the omentum over the cyst, slightly adherent. An opening was made in the omentum, with blunt instruments, through which the cyst wall became visible. The hand introduced through this opening showed the existence of firm adhesions of the cyst wall to neighboring organs. After enlarging the external incision the gastro-colic ligament could be seen stretched over the cyst.

The transverse colon lined the lower border of the cyst, and had descended behind the symphysis pubis. When this portion of the intestine was elevated it was seen that the cyst belonged to the mesocolon. The separation of the cyst presented many difficulties, consequently its size was reduced by tapping, the opening was closed with pressure forceps, and enucleation commenced through a vertical slit in the gastro-colic ligament. Numerous mass ligatures had to be applied to arrest troublesome hemorrhage.

On the left side of the cyst the same enlarged vessel was met with that could be felt externally; it was found so intimately adherent to the cyst wall that it could not be isolated; it was, therefore, ligated double with the accompanying vein, and divided between the ligatures. To facilitate the deep dissection the incision was enlarged upward, and the cyst opened and emptied with the patient lying upon the side. The hand was introduced into the cyst, when it was found that the attached portion extended in an upward direction. The artery previously ligated had to be tied again higher up. In completing the tedious enucleation no pedicle was found.

From the position it could be ascertained that the base of the cyst was in the vicinity of the pancreas.

After careful arrest of hemorrhage at the bottom of the wound, and usual toilette of peritoneum, the external wound was closed completely, no drainage being used. The patient, who had become considerably collapsed, was rallied by the administration of stimulants. In the evening, temperature was 37.6° C., pulse 72, pain in the abdomen, and nausea. Restless during the night. During the next few days pulse became more frequent, jaundice and diarrhea, great restlessness and collapse, which terminated in death on the sixth day after the operation. At the autopsy extensive purulent peritonitis was found to have been the cause of death. In the transverse mesocolon a hole was found, through which a fist could be passed. Through this opening a cavity, the size of a fist, was entered, the walls of which were infiltrated with blood and pus. In the bottom of this cavity the exposed pancreas was seen, which appeared divided transversely behind the head. Along the margin of the pancreas the splenic artery and vein were found ligated, and a portion of both vessels excised. The middle portion of the pancreas was absent. A portion of the tail of the organ, five centimetres in length, remained. Spleen enlarged to twice

its normal size, otherwise normal in structure. Remaining organs healthy. A microscopical examination of the cyst showed that its walls contained pancreatic tissue. Inner surface not lined with epithelial cells.

CASE IV.—Reported by Kramer, operation performed by Hahn (*Centralblatt f. Chirurgie*, No. 2, 1885). Female, sixteen years of age, after an attack of vomiting and pain in the abdomen noticed a gradual distention of the upper portion of the abdominal cavity. The size of the tumor and the area of dullness corresponded to my case. The dullness appeared to be continuous with the hepatic dullness. Echinococcus cyst of the liver was diagnosticated. Laparotomy was performed, and the omentum divided between the stomach and the transverse colon. About two litres of an albuminous fluid were removed by tapping. The cyst was stitched to the margin of the abdominal wound, incised and drained. The patient recovered from an external pancreatic fistula, which continued to secrete pancreatic juice for four months.

REMARKS.—The experiments made for the purpose of ascertaining the effect of complete and permanent obstruction of the pancreatic duct, as detailed, have demonstrated conclusively that obstruction is not the only nor the most important element in the causation of a pancreatic cyst. That the ligated portion of the pancreas continued to secrete pancreatic juice was proven by the experiments on external pancreatic fistula, and yet, of the many cases of ligation of the pancreas, in not a single instance was a cyst, or even an attempt at the formation of a cyst, observed. The only physical evidence of obstruction was apparent in a moderate and uniform dilatation of the duct behind the ligature. The most important etiological factor in cases of cysts of the pancreas must be sought in an arrest of absorption of the pancreatic juice, due either to a transformation of the pancreatic juice by the admixture of pathological products into a substance which is incapable of being absorbed,

or to a loss of function in this direction of the vessels which perform this task.

The obstruction in the pancreatic duct may cause retention and accumulation of pathological products, but can never be the sole cause of retention of pancreatic juice in an otherwise healthy portion of the pancreas. In the cases where normal pancreatic tissue was found in the cyst-walls, it was more than probable that the pathological condition which had caused the obstruction did not effect complete physiological detachment of the peripheral portion of the pancreas; in other words, the obstruction was not complete. In cases where complete physiological detachment has taken place, either by the application of a ligature, or complete obliteration of the duct by pathological conditions, parenchymatous degeneration and atrophy in the detached portion is such a constant result that the exceptions to this rule must indeed be few, if any. In the diagnosis of pancreatic cysts nothing new has been added. The history of the case, the primary starting-point of the tumor in the epigastric region, its gradual and almost painless growth, are points which should be carefully considered in the differential diagnosis of abdominal cysts. The treatment by extirpation, as only recently practiced again by Riedel and Billroth, is not deserving of imitation.

The post-mortem examination in Billroth's case shows only too plainly the difficulties met with in identifying the tissues at such great depth, and of avoiding unnecessary injury to important structures. I wish again to repeat what I had to say on this method of treatment last year. Extirpation of the cyst would guard most effectually against the formation of a permanent pancreatic fistula, but, on account of the deep location of the pancreas, shortness or absence of a pedicle, and the many obstacles thrown in the way of the operator by adjacent organs, the procedure becomes one surrounded by innumerable difficulties and, in the present state of our science, of doubt-

ful propriety. The formation of an external pancreatic fistula in the treatment of cysts of the pancreas has been so uniformly successful that it should be invariably adopted in preference to excision, and the latter operation should only be resorted to in cases where portions of the cyst-wall have become the seat of malignant disease, likewise in cases where life is threatened by hemorrhage into a cyst by rupture of vessels lining the interior of the cyst, and which can not be controlled by simpler and less hazardous measures.

THE CAUSE OF SUPPURATIVE ACTION.

The treatment of disease by hypodermic medication has often resulted in septic poisoning by the introduction of septic matters with the needle of the syringe.

If the study of bacteriology had done nothing more than suggest the remedy for this evil, a great boon has been secured to humanity. The discovery that suppurative processes always depend upon the presence of the *staphylococcus aureus* is now asserted by Cornil, Cheyne, and Prudden. The widespread distribution of this coccus in the habitations of men mark the strong character of Lister's acumen in discovering the means of preventing its growth in open wounds by sterilizing the juices before closure, and their exclusion subsequently by protective dressings.

It was no mean achievement to determine that suppurative processes depend on micro-organisms in the air, and even Mr. Lawson Tait, with all his brilliant results in abdominal operations, slyly excludes the presence of the culture media for septic cocci from his hospital, and prevents their introduction from without, before attempting those exhibitions which he calls "defiance of the Listerian principle."

Fools are confident in their expressions of contempt for what they call the "*bug theory*," but they have nothing to say of their experiences in scientific methods.

EYE, EAR, AND THROAT.

THE PERIOD OF ADAPTATION IN THE USE OF GLASSES.

BY

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[An answer to numerous correspondents.]

In hypermetropic eyes a certain degree of tension in the exercise of reading is necessary. This tension we call "strain of the accommodative function." Now, if a person have a long-acquired habit of straining the accommodation, to adapt the hypermetropic eye

to near objects, as in reading, the exercise of the focusing, or the accommodating, power being involuntary, the sudden correction of the defect of refraction which rendered this strain necessary will not be sufficient to overcome the long-established habit of straining. The period of time required for the eye to assume its comfortable accommodation, with fully corrected refraction, we call "the period of adaptation." This period has not been sufficiently defined, and the necessity of affording some aid to the weary eye in adapting itself to see objects through glasses which correct the refraction has not been sufficiently insisted upon. The rule laid down by Donders and Græfe is to prescribe a weaker glass than that which is found necessary to fully correct the error of refraction in the eye; and when the patient has become accustomed to these glasses, make no change until the eye again exhibits fatigue from the exercise of an excessive amount of accommodation required in overcoming the uncorrected refraction. In other words, it has been recommended not to correct the full amount of hypermetropia observed in young persons lest, during the period of adaptation being attended with more or less discomfort, the patient should be unwilling to persist in making the attempt. Fox and Gould, in their excellent little manual, at page 48, say they have found that "it requires some

bravery, and more knowledge of the patient—a knowledge that he will trust you, and not expect perfect results at first, to carry out the plan of an ideal correction of the hypermetropia." They recognize, however, that the final outcome will be better to make the correction complete at first, and that this method obviates the necessity of any early change in glasses. In persons who suffer inconvenience during the period of adaptation, which, of course, is the period between the time required for the eyes, which have been fully corrected, to become accustomed to the use of the glass necessary for that correction, Fox and Gould suggest the daily use of a solution of the sulphate of atropia, the one hundredth of a grain to an ounce of water. Homatropia is preferable, because it does not provoke ciliary irritation, and its effects pass away sooner.

Landolt, in his recent work on Refraction and Accommodation, at page 339, says: "The accommodative effort is not to be measured by any fixed standard, but finds its expression in the relation between the effect produced and the entire amount of accommodative power at disposal. I have tried to determine experimentally the quota of the range of accommodation; and I think myself justified, from the experiments, in assuming that it amounts to one third or one fourth of the total range of accommodation."

He thinks convex lenses, sufficient to bring the eye up to its individual normal standard, should be sufficient. He thinks the patient who requires three dioptries for the correction of his refraction should be allowed to hold three quarters to one dioptrie in reserve. Thus he would prescribe 2 or 2.25 D., permitting the patient's overtaxed and abnormally developed accommodative power to make up the deficiency of one dioptrie of accommodation, which the patient holds in reserve. Experience in this country shows that Americans require more perfect correction of the errors of refraction than do people of other countries.

The editor of *PROGRESS* has now and then observed persons unwilling to comply with his instructions to persistently wear the correcting glasses until the symptoms of asthenopia disappear. These cases, however, are comparatively rare, and are by no means so numerous as the other class, who have been elsewhere and had the refraction corrected upon the principle laid down by Donders and emphasized by Landolt, namely: to recognize the abnormal increase in the patient's accommodation as a factor to be relied upon in the future use of the hypermetropic eye, prescribing therefor a lens not sufficiently convex to make an ideal or complete correction of the existing error of refraction. This method of proceeding, by the correction of two thirds or three quarters of the existing error of refraction, inevitably proves unsatisfactory, and the patient must always come finally to recognize the necessity for complete correction. It is a good rule in practice, where the patient has not sufficient confidence in his physician to obey instructions, and finally pass successfully the period of adaptation, to explain this matter; and when your patient finds he has eventually to use the glasses you prescribe, it is comforting to know that your judgment has at last been vindicated.

A lady, about thirty-four years of age, the mother of five children, had been wearing glasses purchased from a peddler. She is an intellectual lady. Though suffering from chronic malaria, and of course neurotic, she came on the 15th of January, 1887, suffering from asthenopic headaches and morbid sensibility to light. Testing the refraction under complete suspension of the accommodation she was found to be hypermetropic one twenty fourth, with sight equal to $\frac{20}{xx}$ —|. The correcting glass was prescribed, and she was directed to make no attempt to read or see any near object without the use of the glasses, and to be certain never to bring any thing nearer than fourteen inches from the face. She returned ten days later to say

the glasses were unsatisfactory; that she could not read more than eight inches from the face, and that she could see even better without the glasses than with them. Explaining to her the necessity of persistent effort, in accordance with the instructions not to look at any thing without the glasses, and not to bring any object nearer than fourteen inches, she left the office in a great state of indignation and excitement, declaring that her eyes were worse than when she came.

The only consolation the practitioner can have under such circumstances is the perfect knowledge that she must eventually come to the use of these glasses, or continue to suffer the results of a very much strained accommodation.

People are not always willing to receive such positive instructions as the demands of the exact science of optics require in the correction of optical defects in the eye. They do not like to be told that they must wear these glasses which must be adjusted in a certain way, and they must not try to see any object without them; and it would appear the duty of the practitioner in this field to more fully and elaborately instruct the patient as to the importance, and even necessity, in most cases, of a rigid observance of the fixed and invariable rule, which may be safely laid down in each individual case. As, for example, if the hypermetropia be complicated with astigmatism, the patient must submissively endure the discomfort and inconvenience throughout the period of adaptation, wearing glasses constantly; and, if need be, trying Webster Fox's suggestion, the one hundredth of a grain of atropia to the ounce of water instilled daily. If the defect be in the nature of a plain spherical hypermetropia, the patient need not wear the glasses constantly, but should never attempt to see any near object without them, always taking care not to bring the objects nearer than fourteen inches from the face. The eyes are soon adapted to see at or beyond this distance.

through the lenses that fully correct the error of refraction.

There is some danger in attempting to enforce the universal rule of requiring the patient to endure the discomfort incident to the period of adaptation, and especially in girls. A noticeable instance may be cited, in the person of Miss B——, aged nineteen, whose painful menstruation was complicated with some ovarian disease. She is subject to attacks of retinal hyperemia, and it so happened that the refraction was corrected in her eyes a few days before one of her painful periods. She had had the glasses but a day or two, when she discovered she could not read. She came, in a great state of excitement and alarm, to say the glasses would not do. Ophthalmoscopic examination revealed retinal hyperemia and wide dilatation of one pupil. The pupil in the other eye remained contracted, and seemed to be displaced toward the nasal side. Noticing that she was exceedingly nervous, and inclined to be hysterical, she was advised to consult a general practitioner, recognizing the disturbed state of the genital apparatus above named. She laid the glasses aside, and wore London smoked coquilles until after the painful period had been passed. In eight days from the beginning of the attack, she was quite restored—that is to say, the retinal hyperemia had disappeared, the pupils were now normal, and with the aid of correcting glasses her sight was $\frac{20}{xx}$ —. She was warned against any attempt to use the eyes during these periods, and she suffers regularly at such times the retinal hyperemia, with an amount of amblyopia so great that she is able to count fingers only at a distance of six feet in a good light. The periodical dilatation of the left pupil, and the contraction and displacement of the pupil in the right eye, have been observed to come on uniformly during three consecutive periods. It must be insisted upon, that neurotic women shall not employ the eyes for reading, or any similar work, at the menstrual epoch.

Boys from twelve to twenty years of age are occasionally observed who are unable to adapt their eyes to the use of any kind of correcting lenses. In a number of instances careful notes have been taken, and it is believed the rule is fairly established that in all such some abnormal excitement of the genito-urinary apparatus exists. The reflex neurotic phenomena in persons having genito-urinary diseases, and in those subject to venereal excesses, are more frequently observed to affect the special senses, or the organs of special sensation. Hyperesthetic conditions of the eye in persons under eighteen years of age, and who have not been given to excessive study at night, should at once arouse a suspicion of some genito-urinary irritation. Of course, high grades of hypermetropia, and all forms of astigmatism, may bring on hyperesthesia, headaches, nausea, photophobia, and even melancholia; but unless some genito-urinary reflex exists, a correction of the error of refraction speedily brings relief—it may be gradually, but always more or less complete. In those cases, however, which appear in no way benefited by the correction of small errors of refraction, the reflex character of the disturbance may be considered fairly established by inference at least.

CATARRH.

BY

JOHN D. SIMPSON,
M. D.

OF BLOOMINGTON.

[Read to the Mitchell District Medical Society,
Dec. 30, 1886.]

Catarrh, as Dunglison defines it, is “a discharge of fluid from a mucous membrane,” but as we see it to-day, it is an inflammation of the mucous membrane lining the nasal cavities, the pharynx, eustachian tubes, ethmoidal cells and frontal sinus, attacking one or all in any given case, but as we meet with it, it is generally confined to the nose and pharynx.

The point of attack is generally at the anterior and lower border of the middle turbinated bones, just at the point where, in our inhalations of atmospheric air, it is

loaded with any impurities, first strikes the mucous membrane lining the nose, where, it may be, from an accumulation of dust, or from some irritant inhaled, the nidus is formed from which is hatched the chick that will go on scratching until we have an inflammation that is coextensive with the membrane, covering the whole of the superior respiratory tract.

When the patient applies to us the inflammation is generally chronic in its character, and yields very slowly to any treatment we may adopt, and he, after giving his doctor what he considers a fair trial, leaves him and becomes a patron of the quacks and charlatans that are fattening upon the credulity of a people whom, I sometimes think, are willing to be humbugged.

Catarrh has grown to be our national malady, and it behooves the physician who would be abreast the times to give to it that attention that its prevalence and the disastrous consequences that travel in its wake demand, and not turn the patient away with instructions to snuff salt water, or sulphate of quinine, or a solution of carbolic acid, or use the nasal douche, for I say to you, "and don't you forget it," that salt water nor any other remedy used through the anterior nares will effect a cure if the disease is fastened in the posterior nares, as is almost always the case. Why? For the simple reason that the medicine thus used never comes in contact with the seat of the disease.

The turbinated bones, as we all know, are rolled upon each other like a shaving from the finishing plane of the workman, and at their posterior extremities, where they lie against the side of the nose, fossæ are formed, into which the acrid mucous is adhered, and by its presence there is constantly poisoning the surrounding tissue, and any remedy that is used through the anterior nares will pass over, but never touch that part of the diseased surface behind those bones, and while it will "clean out" the nose and have a salutary effect on

the membrane with which it comes in contact, it can by no manner of reasoning be shown that it can relieve the trouble when once fastened in the posterior nares. Hence the rational mode of treatment will be by means of such appliances that we may reach the morbid structures; for this there has been a great many instruments devised, which, in the hands of experts, have proven to be very useful.

We have the post nasal syringe, the different powder-blowers, etc., with a description of which I will not take up your valuable time, but will rather describe and show to you some of the instruments with which, for the last year, I have been treating successfully the national disease, and the reasons why I prefer them to other and older methods.

The probang, with sponge, has probably been in use as long as any other instruments with which we have personal knowledge in the treatment of inflammatory diseases of the throat, and the principal objections to its use are, that in addition to its being a source of irritation to an already irritated and inflamed structure, its application can not be made thorough on account of the retching of the patient, the spasmodic contractions of the muscles of the throat throwing the membrane into fold, the bottoms or floors of which it is impossible to touch; and where we have ulceration, the seat of it is likely to be in the fold and remain untouched by our application; but we may, by the use of some of the popular remedies, such as silver nitrate and iodine, cause a break in the membrane then unbroken, and as a consequence have an ulceration as the direct result of our application.

By the use of the post-nasal syringe, the quantity of the solution must be so great, if we hope to make our application thorough, that we will frequently choke or strangle the patient, which act may force some of the solution through the infundibulum into the ethmoidal cells, or through the foramen into the antrum of Highmore, and as a

result have a stubborn inflammation set up in those cavities that might cause great harm.

Spray producers that throw cold water: It is very difficult to throw the water above the superior turbinated bones, where the disease is frequently situated; and in addition to that, cold applications to the posterior nares always irritates the parts. All applications should be made warm, and you will then have a mild, soothing effect on the parts, and will never find your patient dreading the treatment. The same applications that, when used warm and have such a salutary effect, if used cold, will be irritating and painful, and you will always find your patient dreading the operation.

The spray-producers I use are Rumbold's, and I have never had occasion to use more than four of them, by means of which I can treat thoroughly, and without the least pain or distress to the patient, the whole of the pharynx, nose, tonsils, and upper part of the larynx.

I use a Burgess air-compressor, with gauge attached, and generally use from six to eight pounds pressure; the spray-tube is attached to the air-chamber by rubber tubing, on which I place a spring clamp, with which I can control the volume of air.

I use vaseline as a vehicle for all medication, and frequently use it alone for several days, where the parts are encrusted, until the crusts are thoroughly softened and removed.

The first step in the treatment of a case is to have the patient depress the tongue, when, by means of artificial light, you examine the parts involved, then warm the cup and tube, the same being attached to the tube communicating with the compressed air, in order that its heat will melt the vaseline; then fill the cup about half full, probably half drachm, of vaseline, to which I add what medicines I am to use; then, while the patient depresses the tongue, I place the end of the tube behind the palate and spray the upper part of the phar-

ynx; this tube throwing a spray directly upward, at an angle of 90° ; next, I take the tube that throws a spray at an angle of 45° upward and forward, using same as before, and treat thoroughly the posterior nares; next, the tube that throws a horizontal spray, and treat the posterior wall of pharynx, tonsils, and, in fact, the whole of the fauces.

That completes the treatment through the mouth, unless you wish to treat the larynx; and if you do, you use tubes that throw a spray downward, at any angle you may desire.

For the nose, I use a tube that throws a spray at an angle of 27° upward; the alæ of the nose being spread open by means of a nasal speculum; I then spray the nose, and on account of the frequent incrustations in the nose, I use this tube twice at each sitting; I throw about two thirds of the medicine in the nose, then withdraw the tube and direct the patient to blow the nose forcibly, and then I throw in the remaining one third, and direct that to be left in the nose.

Vaseline is a mild, soothing application, and in addition to its emolient effect, it remains in contact with the surface longer than an aqueous solution would, giving more time for the absorption of medicines applied in it, besides being a source of protection to the parts from the irritating effect of the air.

There are two distinct varieties of catarrh, or, rather, we find two classes of cases, viz: Those that are "dry," in which the excessive heat in the mucous membrane causes an evaporation of the watery portion of the mucous secreted, leaving the parts encrusted here and there with dry, offensive crusts, and those in which there is no more secretion, but the heat in the membrane not being so great as to cause evaporation, we have dripping from the posterior nares, which is aggravated by any thing taken in the mouth that will excite the salivary glands

The plan of treatment and medicines used in both cases are almost the same, the prime indications in both being cleanliness and antiseptis. Vaseline fills the first indication, and eucalytol and carbolic acid the second. Where there is much tenderness or irritability of the parts, I use, in conjunction with other medicines, oleate of cocaine, 4 per cent. I have found in those cases where there is persistent dripping, and also where there is a neuralgic complication, that by the use of oleate of quinine, 25 per cent, that I have relieved the pain promptly, and after a few weeks, in the majority of cases, have been able to relieve the dripping.

I am grateful, gentlemen, for the kindly attention you have given me, and will only add, that if any thing I may have said will awaken an interest in the minds of the general practitioner to the importance of the subject under consideration, then will I have accomplished the purposes for which this paper was written.

TUBERCULOSIS OF THE CHOROID.

W. H., aged seventeen, came October 23, 1886, with a letter informing me that he was the subject of chronic retinitis, and that he had been under treatment for several months. Ophthalmoscopic examination showed an irregular choroidal atrophy on the temporal side, and just below the macula of the right eye. Suspending the accommodation, and testing the refraction, the vision was $\frac{20}{x}$ with $-1\frac{1}{36}$, while in the left eye sight = $\frac{20}{x}$ with $-1\frac{1}{48}$. He remained in the city a few days, and returned home to a distant part of the state.

December 20th a letter from his brother informed me that he had suddenly become almost blind. He returned during the Christmas holidays. He had hyperemia of the retina in the left eye, with sight equal to $\frac{20}{60}$. In the right eye, hyperemia of the retina, with a minute yellowish-gray nodule projecting from the choroid, immediately

below the macula, between the atrophic spot and the optic disc. A horizontal line drawn through the inferior margin of the optic disc would have bisected this nodule through its center. Sight in this eye equaled fingers at two feet.

The patient was pale and nervous, harassed with cough, dyspepsia, headaches, extending from the temple to the occiput, and complained of insomnia. His temperature, taken three consecutive mornings at 9:30, was a hundred and a half. He said, on awaking from his imperfect sleep about daylight every morning, he felt exceedingly cold. His appetite was not good, and he felt, occasionally, some nausea after breakfast. He took bichloride of mercury, a fortieth of a grain before each meal, and at night. He was directed to drink Blue-lick water as an aperient, and ordered ten grains of the sulphate of quinine every night at a single dose.

The 15th of January the tubercle had perceptibly diminished in size. January 29th, there was a yellowish-gray spot with pigmented margins corresponding to the tubercle. The retina and disc were quite clear, and sight equal $\frac{20}{x}$ in each eye, with an area of obscuration in the field of vision corresponding to the two points of the choroidal disease.

There can be little doubt this was a case of tuberculosis of the choroid. The patient shall remain under observation for future report. Meantime, the young man is directed to make as little use of the eyes as circumstances permit. It is recommended he shall find outdoor employment, and abandon the idea of going to school.

ACCOMMODATION.

The well known experiments of Kramer, after iridectomy, failed to show any relative change in the position of the projecting part of the ciliary body at its point of contact on the anterior surface of the capsular ligament of the crystalline lens during the various changes in accommodation for all dis-

tances within the full range of the exercise of that function.

The experiments of Voelckers may appear conclusive to some, and may have resulted in the establishment of a deep conviction in the mind of the experimenter, but, we must confess, the conditions under which the experiments were conducted were not wholly satisfactory, and therefore the results are not quite convincing.

After all, Dr. Young's demonstration of the fibers of the lens has not been refuted, and the action of the ciliary muscle is as much a mystery to-day as it was in 1800.

IMMIGRATION OF THE DEFECTIVE CLASSES.

[Considered by the Wisconsin State Med. Society.]

WHEREAS, It is known that large numbers of foreigners belonging to the defective classes, such as paupers, criminals, the insane, deaf-mutes,

blind, idiots, and lepers are annually shipped to this country by foreign nations; that insanity, pauperism, and crime are increasing rapidly in this country; that the chief cause of this increase is due to the large numbers of defectives found among the "foreign-born."

WHEREAS, The individual States and Territories can not act independently; therefore be it

Resolved, That the President of this Society be, and is hereby empowered to appoint at this session a committee of three of its members to act in the name of the Wisconsin State Medical Society in presenting a memorial to the next Legislature with urgent request that our Legislature take immediate steps to place the matter properly before Congress, which body alone must take final action; and

Resolved, That a copy of these resolutions be presented to each of our United States Senators, to each of our Congressmen, and to the President of each State Medical Society in the United States.

The committee consists of Drs. R. M. Wigginton, Clark Gapen, and Knut Hoegh.

OBSTETRICS AND GYNÆCOLOGY.

CATALEPSY, METRORRHAGIA, DYSMENORRHŒA, AMENORRHŒA.

BY T. S. GALBRAITH,
M. D.,

SEYMOUR, IND.

[A Clinical Report to the
Mitchell District Medical
Society, December 30, 1886.]

The following brief report includes a few cases that have lately occurred in my practice, that were attended with some rather unusual symptoms. The recital of these, in connection with the treatment adopted and results attained, it was

thought might be of sufficient interest to justify their publication.

CASE I. Catalepsy, at the menstrual periods, due to laceration of the cervix.

March 1, 1885, I was called during the night to see Mrs. B., age twenty-four years, brunette, of spare figure. She was lying in bed apparently unconscious of what was taking place about her. Her body was stiff and rigid, sensibility seemed entirely abolished; she gave no answer to questions, nor evidence of pain on being slightly pinched. The pulse was regular but feeble, respiration slow and scarcely perceptible. I immediately assured the husband that there was no immediate danger, gave a small dose of morphia and atropia, hypodermically, promised to call the next day to further investigate the case, and took my leave.

At my next visit I obtained the following history: The patient had been confined with her first child, eighteen months previously. Since which, at no time had she been entirely well. Pains in the back and a dragging sensation about the womb were constantly felt when she was either standing or walking. She was dyspeptic and anemic; had considerable leucorrhœal discharge, which was occasionally tinged with blood. The menses became re-established fifteen months after the birth of the child, and it was at that time that the first cataleptic paroxysm was experienced.

During the menstrual weeks the patient would sometimes have as many as a half

dozen of these spells, and would be in a more or less hysterical state the entire time. This nervous condition would occur with each menstrual period.

Physical examination revealed a complete laceration of the cervix with eversion of the lips. The vaginal vault was sensitive, both ovaries enlarged and prolapsed. The left one was exquisitely sensitive to the least pressure. The uterus was moderately enlarged from subinvolution, slightly prolapsed and retroverted to the second degree.

After examination I had no hesitation in telling the patient and her husband that the laceration of the cervix was the starting point of the entire trouble, and that Emmet's operation of trachelorrhaphy was the only proper and practicable method for effecting a cure. The patient expressed a willingness to undergo any course of treatment that I would suggest that had for its object the relief of her present distressed condition.

A course of treatment preparatory to the operation was then begun, which consisted of general tonics, hot vaginal douches, local applications to the cervix and vaginal vault of cotton tampons saturated with a solution of alum in glycerine (alum, $\frac{3i}{\text{}};$ glycerine, Oj). This treatment was continued about six weeks, when the parts seemed to be in a condition suitable for operation.

April 20, with the assistance of Dr. Shipman, I closed the cervix after the usual method, using three silver sutures on either side. The sutures were removed on the eighth day, the parts having healed perfectly, and the newly made cervix presenting quite a normal appearance.

The result in this case was as satisfactory as could be desired, the patient had no more cataleptic paroxysms, the distressing pains in the back and hips ceased, all the unpleasant nervous symptoms disappeared, and her general health rapidly improved. In a few months the family moved to Louisville, Kentucky, and I lost sight of them, but in answer to a letter recently sent to the hus-

band, asking him how they were getting along, I received a reply from which I quote the following: "Eight months after you performed the operation on my wife she became pregnant. She had no trouble during pregnancy, neither had she any unusual trouble during delivery. The child is a healthy boy three months old, and the mother is doing well."

CASE II. Metrorrhagia from polypus of the cervix and fungoid growths of the endometrium, in a virgin, aged sixteen years.

February, 1885, Miss P. was brought to my office for treatment. From the patient and her mother I obtained the following history: The early life of the patient had been uneventful. Nothing unusual had happened to her until she began to menstruate at the age of fourteen. It soon became apparent that the flow at those periods was greatly in excess of the normal amount. For several months before I saw the patient the flow had been almost continuous. In appearance she was extremely anemic; her skin looked pale and waxy—almost bloodless. She seemed feeble in *mind* as well as *body*, but not greatly emaciated. It was stated that tonics containing iron, ergot, and other astringents had been often prescribed for her, but without any appreciable effect in diminishing the *hemorrhage*.

By vaginal examination a small polypus was found hanging from the external os. It was attached to the left side of the cervical canal. It was easily twisted off with the forceps. This I supposed sufficient to account for the metrorrhagia, and did not pursue my investigations further at this time. Desiring to give tone to the general vascular system, I prescribed twenty-drop doses of the *Fld. Ext. Hydrastis*, to be taken three times a day before meals, and a Bland pill three times a day after meals.

The flow was very much modified by this treatment, but it did not entirely cease. Therefore, one week later I dilated the cervix with the steel dilators and explored the uterine cavity. The endometrium was

thickly studded with small polypoid vegetations which I removed with the dull curette after which the Tr. of iodine was thoroughly applied. A few weeks later the curette was again used, but only a few vegetations were found. The metrorrhagia ceased at once, normal menstruation became gradually established as the general health improved. The constitutional treatment was continued for three months, by which time the case was considered cured.

Some months afterward I had the pleasure of meeting the young lady on the street, and so marked was the change for the better in her appearance that I failed to recognize her, until she informed me that she was the same person that I had formerly treated. She has since married and moved from our city.

CASE III. Dysmenorrhea attended with a very aggravated form of acne.

January 3, 1885, Miss D., a maiden lady, aged twenty-two years, residence in Ohio, came to me for treatment. In size she was rather large, tall of stature, but otherwise fairly well-formed. She had suffered from dysmenorrhea for several years. The pain and suffering was so severe that she was obliged to go to bed for a day or more at each menstrual period. Her face and forehead was almost completely covered with acne papules of various sizes and stages of development, some of them so large as to give the face a nodular and very uneven appearance. The extremity of the nose was congested and enlarged, and presented that peculiar and striking appearance which is characteristic of acne rosacea.

By vaginal examination a chronic catarrh of the cervix was found. At the os internum the opening was small and extremely sensitive. It was evident that chronic inflammation existed at this point, producing a degree of hyperesthesia probably sufficient to account for the dysmenorrhea, and possibly by reflex or sympathetic action caused the acne that affected the face.

Therefore, I dilated the cervical canal

with the steel dilators, and applied the iodized phenol to the internal os. This treatment was repeated several times at intervals of seven to ten days. At the same time the acne was receiving attention. The larger papules were laid open with the scalpel and their contents pressed out. The smaller ones were, some of them, simply punctured, while others had their contents extended by the comedone extractor. For general treatment the patient was directed to take one tenth gr. of sulphide of calcium three times a day before meals, and a Bland pill three times a day after each meal.

After about three months' treatment the lady returned to her home entirely free from dysmenorrhea, and her face so nearly well that scarcely a sign of the former disfigurement remained.

CASE IV. Amenorrhea complicated with chorea.

December 17, 1885, I was consulted by Miss W., of Jeffersonville, aged nineteen years, a blonde, distinct nervous temperament, fairly well-developed, and possessed of a handsome figure. She had never had what is usually considered a normal menstruation. At the age of sixteen a very slight muco-sanguineous discharge became established, which recurred at regular and proper intervals, but was so insignificant in amount as to scarcely attract attention. The mucous membranes looked pale, and she presented that peculiar anemic appearance which is characteristic of amenorrhea. The abdomen was habitually tympanitic, and the noisy gurgling of the intestinal gases (borloryguns) was so constant and disagreeable that the patient was deterred from going in company. For some months before I saw her she had been subject to frequent attacks of chorea. The left side of the body was mainly affected by the choreac movements. During a paroxysm the left arm would fly around in quite a reckless and abandoned manner, striking her own head occasionally with great violence. The patient described the sensations in the affected

you commence the purgative powders again. Now if you follow my advice, keep the medicine in your house, and as soon as you or one of the family begins to complain, and don't matter what kind of fever you are taken with, one or two rounds of the purgatives will stop it. Just as sure as you take it now, we will look after the medical properties of the medicines used in our prescription. We will notice the medicinal properties of the calomel first; it is according to the dispensatory or the best writers on therapeutics, the only medicine that will remove a portal congestion. Its action is to stimulate the hepatic ducts of the liver, and gives it its natural function. If you take calomel and abuse it, you may expect to be salivated; but if you will take it, and use common sense—not go into the air, and refrain from eating any thing salty, sour, or greasy—you can take it with as much impunity as you can that much flour.

Now, let us notice the medicinal properties of the Dover's powders. Truly, it stimulates the capillaries, or in other words, has a tendency to the skin and moistens it, which gives the calomel full force upon the hepatic ducts of the liver, which causes the liver to excrete and secrete the bile. This is the reason that the Dover's powders are put in the compound while it also acts as an anodine to quiet the excited nerves of the patient and gives him the much needed rest.

Now we will look after the medicinal properties of the chlorate of potash, which is another ingredient in the compound. It acts as a refrigerant or cooling properties—a diuretic, which means to cause the kidneys to excrete the surplus fluids from the system; and does not common sense teach any one that nothing could be of more service or demand to a sick patient?

[This covered near five columns, with no mark to indicate its author.—ED. PROG.]

THE endemic prevalence of pneumonia at Flemingsburg, Ky., began in a visitor recently arrived, and then spread.

BACTERIOLOGY.

W. Watson Cheyne, M. B., F. R. C. S., of London, concludes his third paper, on the relation of bacteria to the living animal body, in the *American Journal of the Medical Sciences*, as follows:

“The local effects of bacteria are very various, and differ in the case of almost every bacterium. They may also, in most cases, be explained by supposing a local action of a poison originating as the result of this growth of the bacteria. The poison, however, is evidently not the same in all cases—indeed, it is probably different in every instance. The most violent of the local effects of bacteria are seen in various gangrenous affections (acute traumatic gangrene and noma). Here it is not a case of death of the tissues as the result of violent inflammation, so much as a direct killing of them by the products of the bacteria. In acute spreading gangrene bacilli have been found which are apparently the cause of the disease. In noma long bacilli are present, which Mr. Lingard has demonstrated to be the cause of the disease. In gangrenous stomatitis in the calf, which affects calves at particular seasons, he has found bacilli which are very similar in appearance to those present in noma in man. On cultivation they present characters which render them easily distinguishable from other bacteria, and on inoculation of these organisms into the calf a gangrenous stomatitis is again produced. A somewhat similar affection, though less violent, was studied by Koch in connection with mice, in which a progressive gangrene of the tissues was caused by the growth of a streptococcus in them.

Another set of local phenomena caused by bacteria are inflammatory, and in connection with these micrococci of various kinds are generally present. In inflammation in man two kinds of micrococci are chiefly found: streptococci, where the individual cocci are arranged in chains, and staphylococci, where they are arranged in

groups. Of the latter there are several kinds. The streptococci are generally found in connection with violent phlegmonous inflammation, where there is a tendency to necrosis of tissue with but little suppuration; the staphylococci are chiefly found in abscesses. The conditions under which abscesses arise in connection with these organisms are not very clear; I believe that local injury or weakening of the part is necessary in most cases, and that the primary dose is of great importance. That these organisms act by the production of poisonous or irritating materials seems certain, for if injected into the blood-stream in animals (and in man in pyæmia and ulcerative endocarditis) they give rise to emboli in various organs, and in stained preparations of these organs it is seen that the tissues in the immediate vicinity of the embolus do not stain, they are dead (coagulation-necrosis), while at some distance off a ring of leucocytes is formed which encloses the organisms. It is clear that the tissue in the immediate vicinity of the mass has been killed by some poisonous excretion, which, at a further distance, has been more dilute, and has acted only as an irritant. In connection with the pyogenic micrococci, it is interesting to observe that the same organisms are found in pyæmia, more especially the streptococci. Probably the difference in dose plays an important part in the different action of these micrococci, nevertheless I can not but think that some other conditions, with which we are as yet unacquainted, must come into play.

A third set of phenomena may be observed as the result of the local action of bacteria, viz: formative and degenerative processes. In tubercle we have something more than a merely inflammatory process; we have a distinct formation and transformation of cells as indicated by the appearance of large numbers of epithelial cells, and also of giant cells at an early stage of the process. The tubercle bacillus seems at first to grow by preference (where it can) in

epithelial (as in the alveoli of the lung) or endothelial cells, leading, in the first instance to their hypertrophy and multiplication, but, bye-and-bye, to their degeneration and caseous transformation. In the case of some cells, however, the vitality of the cell seems to be unusually great, and thus they go on growing, leading to the formation of a giant cell. A tubercle illustrates very well the fight between cells and bacilli. If the cells are the weaker they quickly die and undergo degeneration, and thus the center of the tubercle becomes converted into a caseous mass, in which the bacilli may for a short time continue to grow. If, however, the cell obtain the victory, the bacilli soon disappear, and a "fibrous tubercle," containing giant cells, is left, in which few or no bacilli can be found. These are the tubercles which, on account of the absence or small number of the bacilli, have led to the formation of various theories as to tubercle being due to chemical poison, etc. These theories, however, depend, I believe, on misinterpretation of the facts; such tubercles are rather to be regarded as tubercles in which the bacilli have been already destroyed than as growing nodules. Other examples of the formative action of bacteria are also seen in syphilitic affections and in leprosy."

CULTIVATING
MICROBES
IN TEXAS.

Dr. McLaughlin, of Texas, says: "Frequently these newly formed organisms observed in cultures from the blood of Dengue patients remain united together so as to assume the form of a rod or chaplet; this indicates that they belong to the class named streptococci. In other cases they unite to form swarms or zooglæ. These latter become more compact, the distinctions of the cocci less, the color of the mass deeper, until they finally contract into corpuscular bodies, about the size of red blood cells; these often unite to form filaments, which frequently assume the shape of a network."

BOOKS AND PERIODICALS.

A TEXT-BOOK OF
MEDICINE, FOR
STUDENTS AND
PRACTITIONERS.

BY

ADOLF STRÜMPPELL,
M. D.*Formerly Professor and Director of the Medical Polyclinic at the University of Leipsic.*

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New York: D. Appleton & Co., 1, 3, and 5 Bond St. 1887. 8vo. 981 pages.

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The first chapter, under the head of acute general infectious diseases, is de-

voted to a consideration of typhoid fever. The subject is divided into the ætiology, general course of the disease, course of the fever, phenomena and complications relating to the separate organs: First, the digestive; second, respiratory; third, nervous system; fourth, circulatory system; fifth, the skin; sixth, the muscles, bones, and joints; seventh, the genito-urinary apparatus. Next, a page devoted to peculiarities in the course of the disease, following which relapses of typhoid fever are treated. Then a brief space is given to the diagnosis, after which the prognosis receives attention; then the treatment. It has been a matter of complaint in this country that German writers on practice seldom devote enough attention to the consideration of the methodical treatment. The editor, recognizing this fact, has very largely supplemented his author in this branch of the subject.

The second chapter is devoted to a consideration of typhus fever. Treating of the ætiology, Dr. Strümpell says: "We regard it as an established fact that the disease never arises spontaneously, and that its appearance in a place previously free from the disease is always to be referred to an importation of the pathogenetic poison. It is

likewise determined through numerous observations that typhus is one of the contagious diseases—that is, the specific poison can be directly transferred from the patient to others around him. How is it transferred? We have no certain knowledge." "Of the relapsing fever," says Dr. Strümpell, "it is one of the first infections in which the specific pathogenetic organisms became known, and being easily demonstrable in each separate case, were utilized for the speedy and certain diagnosis of the disease. Obermeier, in 1873, pointed out the specific spirillum in the blood, upon the presence of which we are now justified in making an absolute diagnosis of relapsing fever. The precise manner of the inoculation is not at present known. All observers, however, agree that the disease is directly contagious, as has been proven by inoculation."

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In the sixth chapter, covering but little more than half a page, is all the notice which that now widely prevalent and well recognized disease, Rôtheln, receives.

The author makes a very judicious and wise discrimination between the pseudo-membranes called croupous and diphtheritic. "The croupous membrane, being a grayish-white, rather firm, elastic formation, and may be lifted off with comparative ease from the mucous membrane on which it rests, while the diphtheritic membrane is of the nature of an infiltration with a necrosis of the tissue. Here the exudation is more

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To the student this would appear most wise, and to the carefully observant practitioner, in exact accordance with the clinical and pathological observations. But the very next paragraph will, we fear, prove quite confusing. Our author says, page 62, "There is no essential difference between croup and diphtheria. Diphtheritic inflammation is the severe form of the disease, croupous inflammation, the milder." Immediately after this contradictory paragraph follows a terse description of the two separate forms in their local characteristics.

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In the chapter devoted to yellow fever no mention is made of the researches of Frière, whose work has now been before the profession about two years. According to this last observer, the genuineness of whose inoculation experiments have been attested by many notable persons, among them Dr. H. M. Lane, who was himself induced to visit Rio Janeiro and there submit to inoculation at the hands of Frière himself. It is a little unfortunate that Strümpell and Dr. Shattuck should both have ignored the earnest efforts of so able an observer. It is pleasing, however, to note in the chapter on hydrophobia a recognition of the great work of M. Pasteur.

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Speaking of the diagnosis of tuberculosis of the larynx, the author very correctly says, "It is made perfectly certain in all doubtful cases by the presence of tubercle bacilli in the expectoration or taken directly from the ulcerated surface." There are many cases of tubercular laryngitis in whom no pulmonary symptoms exist. The reviewer now has several such cases under treatment, notably that of Captain G. W. R., a railway passenger-train conductor, forty-six years old, in excellent general health, in fact, a robust man. He noticed four months ago a slight burning sensation in the throat, aggravated by breathing the atmosphere in the smoking car, through which he is obliged to pass for the collection of fares. Within two weeks past he suffered a troublesome hoarseness with discomfort and tendency to incite cough, when he finds it necessary to talk. He came first for examination January 23d. Three small gray abrasions were found on the surface of the epiglottis. Beginning at the tubercle of Wrisberg, on the right side, a superficial ulcer with a gray base extended down to the anterior end of the right vocal chord. In the center of this chord, on its upper surface, extending over its free border, was another greyish-pink patch. With a bit of absorbent cotton, rolled tightly upon a curved probe, the ulcerated surfaces were gently wiped. Waiting

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a moment for the spasmodically contracted larynx to become relaxed, the mop was removed. A previously prepared cover glass was brushed with the adherent matter on the mop and prepared after Dr. Gibbes' method. Tubercle bacilli were present in great numbers. The patient has no elevation of temperature, and is in every respect, so far as his powers of observation extend, in good health, with the sole exception of the hoarseness and local discomfort in the throat.

Another case was that of a carpenter, forty-six years of age. Mr. P., engaged at the shops of the Louisville & Nashville R. R. Co., came on the same day with Captain R. Mr. P. has an inflammatory infiltration at the base of the epiglottis on the right side. The anterior wall of the glottis, throughout its whole extent, is abraded and covered with a gray tenacious matter. The right wall of the larynx, from the rim of the glottis down through the right vocal chord, presents a ragged and worm-eaten appearance, involving the continuity of the chord. A mop used in the same manner as described in the case of Capt. R. brought away a quantity of lymph loaded with tubercle bacilli. Mr. P. works at his trade every day, weighs one hundred and fifty pounds, has good appetite, has lost no flesh, and is disturbed in no other way than by the presence of a burning pain in the throat, greatly aggravated by swallowing, and almost entire loss of voice. His chest has been examined by two of the most expert diagnosticians with entirely negative results. Strümpell's remarks upon the treatment of such cases is so sadly deficient we feel obliged to say that, while the muriate of cocaine solution recommended by this author is of great value in rendering instrumental manipulations painless and easy, no dependence whatever may be placed upon cauterization with nitrate of silver, nor upon the inhalation of any anesthetic, nor upon the application of iodoform.

In cases like that of Captain R., the more successful treatment consists in first produc-

ing local anesthesia with a spray of muriate of cocaine or by application with a brush. Then a cautious and well directed application of a solution of bi-chloride of mercury five grains, distilled water one ounce, chloride of sodium sufficient to make a solution. To apply this a small mop should be made by rolling absorbent cotton upon the end of a curved probe. A little vaseline should be smeared upon the cotton mop, reserving one side or end of the mop, to which the corrosive sublimate solution may be applied by a small glass pipette until the cotton is saturated. The probe is then to be introduced and the uncovered part of the mop applied directly to the ulcerated or abraded surface, in contact with which it may be held from ten to twenty seconds without inciting pain or a disposition to close the larynx. Indeed it is sometimes unsafe to prolong the application, lest contraction should occur, and the caustic fluid be more widely distributed upon the sound parts than the patient would be able to tolerate with comfort. A single application of this kind is sufficient, provided, however, a weaker solution of bi-chloride be used daily in the form of a spray. In many cases no other treatment will be found necessary, and we very much incline to the opinion that no other method has been attended by actual recovery.

The prominence given to diseases of the nervous system is well calculated to enhance the value of the work.

We shall reserve other portions of Strümpell's most excellent work for future consideration, being content for the present to announce it as the most valuable medical textbook with which we are acquainted. The few faults we find, it will be observed, are chiefly in the nature of omissions; and, as no human work may be accounted perfect, it is but fair to say the faults in Strümpell's work are comparatively few. We earnestly commend it as an invaluable companion to both the student and practitioner of medicine.

THE JOURNAL
OF DIETETICS,

Devoted to investigations into the physiology and pathology of digestion and nutrition, and the relations of regimen to practical medicine.

Vol. 1, No. 1, Cleveland, Ohio, January, 1887.

J. B. SAVAGE,

Publisher. Published quarterly at 50 cents per annum; a double column twenty-four-page 8vo.

It may not be the proper thing to notice such publications as this, but it represents a class which should be excluded from the United States mails as second-class matter. It is in no sense an original literary enterprise. The first article

is credited to Dr. Wm. Caldwell, and is said to have been read before the North-eastern and Northwestern Ohio Medical Associations, at the joint meeting held at Illyria, Ohio. Just when this meeting occurred does not appear. Another part of this original article, evidently written by the chief advertising agent of the manufacturing house, who's advertising circular now suddenly assumes the title of a journal, is devoted to the "Pathology of Digestion in Acute Fibrile Diseases." Now the pathology of digestion is a novel subject for consideration. A little attention to the article under this heading will be sufficient to convince the reader that it was written by some one wholly unacquainted with the subject of digestion. In fact, the quotations, which form the main bulk of the essay, are strung together by an unskilled hand. The mails are flooded with such publications as this, and we feel it is time to call a halt. In the matter of exchanges we draw the line against almanacs and trade circulars.

A NEW
JOURNAL OF
BACTERIOLOGY.

Central Blatt für Bacteriologie und Parasitenkunde, published weekly at Jena

by Gustave Fischer, has for its American editor Prof. George M. Sternberg, M. D., of the Johns Hopkins University, of Baltimore. We anxiously await the appearance of this much needed exponent of the great science of mycology in its relations to medicine. Contributions by American writers should be addressed to Dr. Sternberg.

Vol. 1, No. 8—28.

CORRESPONDENCE AND SOCIETIES.

PHILADELPHIA
LETTER.

By our Regular Correspondent.

W. H. MORRISON, M. D.
Typhoid Fever—The Brain of a Murderer—A New Society—Journalists at the Medico-Chirurgical.

A case of considerable interest has recently been under observation in the hospital of the University of Pennsylvania, under the care of Dr. William

Pepper. The patient was admitted to the institution in the latter part of November, 1886, in a profoundly typhoid state. As far as could be ascertained from the meagre history obtainable, it was supposed that the disease had reached the middle of the second week. There was neither diarrhea nor eruption. The temperature was high and there was profound stupor amounting almost to coma. There was distinct catarrhal pneumonia, as evidenced by disseminated patches of percussion dullness, with bronchial breathing and the expectoration of blood-stained sputa. The case was further complicated by the presence of a distinct systolic murmur heard best at the base of the heart, jaundice and albuminuria. The patient had been in the hospital on previous occasions with catarrhal nephritis, but no cardiac murmur had been observed. The absence of hypertrophy also indicated the recent origin of the murmur. The diagnosis rested between typhoid fever with the unusual complications of severe catarrhal pneumonia and simple endocarditis, and ulcerative endocarditis of the typhoid type.

During the week following admission, ecchymoses appeared under both conjunctivæ, and an eruption developed over the abdomen and chest. This at first resembled, in some respects, the rash of typhoid fever, but it rapidly assumed a petechial type. Epistaxis occurred on several occasions, and there was a tendency to looseness of the bowels with stools somewhat resembling those of typhoid fever. The condition of the urine improved, but the cardiac murmur increased in force. The treatment consisted

in the administration of stimulants, quinine and turpentine.

By the end of the second week of his stay in the hospital the patient began to improve, and he became more intelligent. The improvement was, however, but temporary. It was followed by an increase in the jaundice and a return of the stupor, and the patient finally died about five weeks after admission.

The autopsy revealed in the intestine the characteristic lesions of typhoid fever in an advanced stage of cicatrization. There was also ulcerative endocarditis of one leaflet of the aortic valves, the ulcer being one third of an inch in diameter. The lungs revealed the lesions of catarrhal pneumonia. The case was of extreme interest on account of the complexity of the condition's present and the difficulty of reaching an accurate diagnosis. We understand that Dr. Pepper proposes to make this case the subject of a full report in the near future.

About two weeks ago there was executed at Norristown, Penn., a man named John Wilson, convicted of killing his employer, with whom he resided. The body of the murdered man was dismembered, placed in a bag and thrown into a stream of water, where it was discovered some months later. The principal evidence connecting Wilson with the crime was his own confession. It was alleged that he was insane, but he was, nevertheless, convicted and executed. At the last meeting of the Philadelphia Neurological Society, Dr. Francis X. Dercum, of this city, exhibited the brain of Wilson. It presented many interesting peculiarities. The skull was extremely thin, and the sutures had disappeared. The duramater was adherent, and there was evidence of inflammation of the pia mater and arachnoid. About six ounces of fluid escaped. The brain itself was unusually heavy, weighing nearly fifty-eight ounces. The chief interest, however, centered in the study of the convolutions and fissures, which presented many abnormalities. The brain had

evidently developed under a condition of excessive pressure, and showed numerous perpendicular and transverse fissures entirely unlike what is found in the normal brain, but closely corresponding to the arrangement of the fissures and convolutions seen in the brain of the ape. Microscopical examination showed a tendency to vacuolation, and in places there was dilatation of the peri-vascular and of the peri-ganglionic spaces. It was not held that the appearance of the brain positively indicated insanity. The report was presented simply as another contribution to the interesting study of the brains of criminals and of the insane.

A few years ago the proposition to establish a department for the education of nurses in connection with the Philadelphia Hospital met with considerable opposition. It was, however, commenced, and is to-day a recognized benefit to the institution and attracts large classes. The University of Pennsylvania has recently inaugurated in connection with its hospital a Nurses' Home. A building for the residence of the nurses has been erected upon the hospital grounds, and weekly lectures are delivered by the physicians and surgeons connected with the institution.

The already long list of medical societies of Philadelphia has been increased by the formation of an organization consisting of the German-speaking physicians of the city. Dr. F. H. Gross, of the German hospital, has been elected chairman. One of the objects of the society is to afford means of increasing the knowledge of the German language and literature among its members.

The worth and abilities of medical editors are beginning to be recognized in Philadelphia. The latest illustration of this is found in the election of Dr. William C. Wile, of Newtown, Conn., to the position of Professor of Diseases of the nervous system in the Medico-Chirurgical College. Dr. Wile is well known as the editor of the *New England Medical Monthly*. The medical editors

are well represented in the faculty of the Medico-Chirurgical College, for, in addition to Dr. Wile, we find among its members the names of Dr. William F. Waugh, editor of the *Medical World*; Dr. Frank Woodbury, editor of the *Medical Times*; and Dr. John V. Shoemaker, editor of the *Medical Bulletin*. Few faculties can make as good a showing.

In this connection it may be mentioned that Dr. D. G. Brinton, editor of the *Medical and Surgical Reporter*, has been elected Professor of American Archæology and Linguistics in the University of Pennsylvania.

SECOND CONGRESS
OF FRENCH
SURGEONS.

BY

MARCEL BAUDOUIN.

Translated from *Le Progrès Medical*, for PROGRESS, by

MRS. SALLIE E. MORRIS,
of Covington, Ky.
(CONTINUED.)

M. MAUNOURY, of Chartres. The facts which he has observed are not favorable to the theory of contagion. He has seen, personally, seven cases, and has been able to gather from his confreres about thirty others. In several of these cases the action

of cold was very apparent. The antiseptic dressing did not prevent tetanus, as evidenced in an ovariectomy and a ketotomy, when the antiseptics had been rigorous. Cure has been more frequent in wounds from amputation than in bite wounds. As to its being contagious, he has not been able to find it so. Not one of his patients with tetanus had been in a house shut up with other tetanic men or animals. There was not any of it afterward in these houses. It is well known that there are tetanus epidemics, several cases appearing suddenly, without apparent cause; but it is very necessary to note the difference between epidemic and contagion. Epidemic prevalence is not denied by any one, but in order to prove contagion it would be necessary to show that tetanus subjects have had intercourse, direct or indirect, with other tetanics. This has

not been shown, or at least has been shown only in such rare cases that it can only be considered as simply a coincidence. One arrives at the same conclusion if, instead of considering human tetanus, one considers tetanus among animals. I have gathered together more than one hundred and fifty cases of tetanus among animals, observed by six veterinarians. These animals were observed in the stables of their proprietors as well as in infirmaries. Now, not one of these veterinarians remembered to have taken care of two tetanic animals on the same farm, and not one case of human tetanus came to their knowledge in a place where they had seen a tetanic animal. In the infirmaries of veterinarians I have found no contagion. I will cite, for example, the statistics of M. Vinsol, Veterinarian at Chartres, who, while he had some tetanic animals in his stables, practiced seventy-one castrations, and five other operations, which resulted in only one case of tetanus, which is a very small proportion, and can not be attributed to contagion. All conclusions, then, upon the etiology of tetanus up to this time are premature, and the question rests entirely unsolved. The facts observed are contradictory, and experiment is not less so; as while Nicolaier and Rosenbach pretend to develop, easily, tetanus by inoculation, French experimentors, notably M. Nocard, only arrive at negative results.

M. VERNEUIL. All is contradiction in the etiology and pathogeny of this disease. The therapeutics is forcibly, for this very reason, open to experiment. He has just humbly submitted to the members of the congress a new hypothesis destined, if it be possible, to guide, as the thread of Ariadne, the seekers of the future. In his opinion, tetanus must be of animal origin, and it originates from the horse, just as we have glanders from the same animal, the carbuncle (anthrax) from the bull, the trichinosis from pork. It is a specific contagious disease, whose development is due to germs originating from the outside. It is found among

men, horses, monkeys, and perhaps among birds. Whatever form it may be, it is always the same disease. If it is contagious in one species (and that is admitted in the horse) it must be so in man. It is transmitted between subjects of the same species, and also of different ones. It originates from a special and unique agent: perhaps a microbe. The germ, in order to be pathogenetic, has need of the reunion of several causes. As that takes place in diseases seldom met with, manifold causes are necessary for tetanus. These adjuvant causes are wounds permitting the introduction of the germs and the cold which favors their development. Such are the propositions which he formulates, and on that subject related several interesting facts. At Noisy-le-Sec there has been from time immemorial an endemic of tetanus. It has often been observed to proceed from the dejections of the affected horse to others, and to man, and from man to man. These are such facts as he has in a few days been able to collect on the subject.

M. DOYEN, of Reims, related a case of traumatic tetanus in a young man who died in three days after a contused wound of the left index finger. The tetanic symptoms began eight hours after the injury. The autopsy showed intense neuritis of the wounded nerve and the contiguous part of the median. Another case, in a patient of fifteen years of age, who had sustained fracture of both thighs. That of the left was compound and discharged sanguinous pus from many openings. Tetanus came on eight days after the injury, beginning with clonic spasms of the left lower limb, terminating fatally. Microscopic examination of the discharges from the wound during the existence of the tetanus showed small, rod bacteria in chains and in bundles. The latter form was observed in the blood, particularly in the interior of the white globules. The autopsy showed osteomyelitis contagiosa of the femur, cold abscesses of the inguinal and iliac glands.

In 1885 Professor Cornil observed, in ex-

amining the blood and the brain of a tetanic subject after death, the *staphylococcus aureus* and *albus*. A young girl, sixteen years of age, during the progress of a wound from tearing away of her hand, was seized twenty days afterward, on account of improper dressing of the wound, with tetanic symptoms, and died within three days. The examination of the severed hand showed papular eruption, and inflammation of the median nerve. Cultures from portions of these foci of inflammation yielded negative results, whilst blood from the liver and spleen was rich in groups of staphylococci. None were found in the brain, the spinal cord, nor the kidneys. These facts demonstrate the coincidence of the tetanic accident and the surgical septicemia. It was impossible to recognize the bacillus of Nicolaier. Tetanus in all these four cases may have resulted from the special localization in the nerve centres of the microbe which caused the septicemia.

M. LARGES then spoke also in defense of the infectious nature of tetanus—having spoken on the same subject a year ago—before the Society of French Surgeons. He offered to the congress some documents bearing upon this subject, furnished him for this purpose by physicians and surgeons of South America. These papers testified to the diminution of tetanus in their country since the introduction of the antiseptic treatment. He cites, also, a case of contagion from tetanus after several years. *Apropos* of the infectious nature of this disease, he thinks clinical evidence almost shows it in the case of human medicine as much as veterinary, although experience is silent in that regard.

M. BORIES reported a case of acute traumatic tetanus followed by recovery. This patient got 169 hypodermic injections of morphia, and had taken more than 200 grammes of chloral during the progress of the disease. This, with flannel wraps and isolation of the patient, constitutes the proper treatment of acute cases, continuing

the nypodermic morphia and large doses of chloral until all signs of muscular contractions cease.

M. BLANC, of Bombay, in a very remarkable communication gave an account of the great and peculiar ability of the author. He gives the ideas which prevail in India upon these different questions. This surgeon who, at Bombay, has a very extensive practice, remarks that since the treatment of Liste pyemia has disappeared from his hospitals. Although tetanus shows itself as in the past, it appears at the height of the warm season, and the frequency of its coming is coincident with that of the cholera. Both diseases appear to him to pursue a parallel course. He observed in Bombay about sixty cases, in the three following forms: First form, acute, lasting rarely more than five days, always fatal, characterized by progressive elevation of temperature, which rises as high as 108° to 110° , Fahrenheit; second form, sub-acute, very often fatal (death following, ordinarily, about the twelfth day), with temperature variable—never progressive; third form, chronic, lasting from thirty to sixty days, apyretic, having three periods—progressive, stationary, decreasing—terminating generally in recovery. He thinks that the pathological modifications of the cord are rather the effects than the cause of tetanus, for he found them only in sub-acute or chronic cases, never in acute fulminant cases. He believed at one time in the therapeutic action of the phosphate of zinc in this affection, but he found he had been led into error. He points out the danger of certain medications, of the bromide of potassium, for example, where it is given in continued doses, and says that the Hindoo physicians attach great importance to constipation. This is the reason they treat tetanus with purgatives. At Bombay many horses have tetanus, which confirms the ideas of M. Verneuil. He believes this disease is contagious, and the result of something which affects not the wound, but the individual. He compares

the causes of tetanus with that which causes cholera. He thinks tetanus is drunk like the cholera; its germ exists in water, and by water it is spread abroad.

M. RELIQUET, of Paris. Indications and Contra Indications for Lithotritry. Up to 1878 most of the French surgeons, following the counsels of Thompson, made use of the lithoclast, and left it to the urine to carry away the stones. About this time Bigelow demonstrated that chloroform would permit us to make prolonged operations. In 1871, M. Reliquet arranged his apparatus for lithotritry, which rendered the taking of a stone very easy, in causing the stone to fall into the opening or pouch of his instrument. In 1872 he made his lithoclast so powerful that in one case he removed a stone from two to two and a half centimetres in diameter in one single operation, very short, and without chloroform. He always aided the evacuation with a probe, with chloroform administered, in order to remove the largest stones, from four to five centimetres in diameter; he was occupied scarcely thirty minutes in the operation, the crushing and evacuation included. With a similar instrument, it is necessary that the stones should be more than five centimetres in diameter, and should be hard, so that it would not be possible to crush them rapidly, and yet the urethra places an obstacle at the entrance of a lithoclast sufficient to make these cases troublesome. Thus, there is only the excessive hardness of the stone, small or large, the state of intolerance of the bladder, the fastening of the stone upon a point of the wall of the bladder, which compels us to give way to lithotritry, and that by reason of the power of the instruments that he has made, and of the fortunate action of chloroform upon the urethra, which permits the prolonging of the manipulations.

M. PONCET, of Lyons, on the INFECTIONS OSTEOMELITIS, the presence of which is shown sometimes by waste of substance, reducing the patient almost to a skeleton,

and the solution of continuity in osseous tissues demands the several months to supply the waste, the positive result being, on that account, variable. This surgeon believed osseous grafts would produce favorable results, and made to this purpose (or in support of this) an experiment upon a child, whose right tibia he had removed, except the right tibial, after a serious osteomyelitis. The sequestrum taken away was thirty centimeters long. The periosteum was preserved. The first experiment of grafting was made with bony slices taken from a newly-born child, one hour before death. Of eight osseous grafts (the periosteum upon portions of the grafted bones had been preserved) five were not necrosed. A new experiment several days later, nine osseous fragments taken from a young kid were introduced into the wound: two necrosed. From that time the grafting of human bones was again recognized. The patient has now a presentable tibia, and can walk. Consequently the osseous graft is possible under given conditions, with children and adults; for example, it permits of clipping off without shortening the diseased limb or member.

The grafts ought to be small (six to eight millimetres by three to four millimetres). They ought to include the periosteum, and to be taken from *juxta epiphyseal* bone, that is to say, from enlarged zones. It is necessary to use as much as possible the human skeleton, or, in default of that, to choose from young animals, to detach the slices of bone with the bistoury, to have a suitable ground, and choose the right moment to interpose. In order to be able to count upon the graft it is necessary to try it during the period of the healing of the wound, and then the growing flesh makes a good figure. Of course regular antiseptic treatment and absolute immobility are necessary.

M. TERRILLON, of Paris. Torsion of the neck of the OVARIAN CYSTS and tornical consequences and operations. All the cysts of the neck of the ovary sufficiently long can, if they are free, turn upon themselves,

whence comes the torsion of the neck. Torsion is not accompanied by a compression of the vessels of the existing neck, but it is merely an anatomical curiosity. When there is a compression, on the contrary, it produces variable phenomena, very interesting for the surgeon to know. The veins become varicose, the arteries hypertrophied, and the vessels finish by obliterating themselves in a point. If the torsion is sudden or rapid it could bring about detachment of the cyst, which becomes free by the rupture of the neck, inflammation of the cyst of the peritoneum, hemorrhage, more or less extensive, in the cyst, rupture of the walls, or rapid mortification of the cyst. When the torsion is slow there is a swelling of the walls, a momentary enlargement of the cyst, unless the adhesions do not produce a collateral circulation; an evil and melancholy consequence known of this torsion is the formation of extended and even total adhesions following plastic peritonitis. He cited four cases which prove this. What causes the presence of these symptoms? In acute cases operate immediately and as rapidly as possible, without recourse to puncture. In chronic cases an operation is yet more essential. It is then easy to destroy the recent adhesions, which later become indelible. In fine, as in old mortification, with wider indestructible adhesions we can yet hope for a cure by largely opening the cyst and making it suppurate after drainage has been provided for.

(TO BE CONTINUED.)

A NEW DEPARTURE.

The St. Louis Medical Society has appointed a committee of publication and employed a stenographer to make reports of all the meetings.

The publishing committee revise the official reports, and supply them promptly every week to such journals as subscribe for all the reports. This is a move in the right direction, and should be imitated by all local medical societies.

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY.

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THE MALARIAL GERM OF LAVERAN.

In a carefully prepared and handsomely illustrated article, contributed to the

American Monthly Microscopical Journal, by George M. Sternberg, M. D., it is stated that malarial fever was believed by Lucretius (95 B. C.) to be due to micro-organisms. The *bacillus malarie*, described by Klebs and Crudeli, universally recognized as the *materia morbosa* of the intermittent fever, it is now stated, by Dr. Sternberg, has been supplanted in its claims by the more recently described cryptogam of Laveran. After the publications of Klebs and Crudeli in 1879, Dr. Sternberg instituted what he calls "control experiments" at New Orleans. He found organisms in the swamp-mud and gutters of New Orleans "closely resembling the *bacillus malarie*, which, when injected hypodermically into rabbits, did not produce malarial fevers resembling the paludic fevers of the human subject." It is unfortunate Dr. Sternberg in his control experiments did not employ the real *bacillus malarie*, instead of micro-organisms closely resembling it. A careful study of this well-written paper must lead to the unfortunate conclusion; that the expressions of skepticism which led to the rejection of the *bacillus malarie*, in consequence of the failure of those organisms *closely resembling it* to produce malarial fevers, and which, on the

other hand, induced Dr. Sternberg to remain skeptical until Laveran had been confirmed by a number of his students, and by Marchiafava and Celli. The two last named gentlemen had formerly confirmed the *bacillus malarie* of Crudeli; but, happily, for the skepticism of Dr. Sternberg, they were at last converted to Laveran's views, as a result of their own investigations.

A careful study of the paper shows conclusive grounds for the belief that the germ of Laveran exists in the blood of those suffering a violent type of what has been known as "pernicious fever." Yet there is absolutely nothing in all this which in the slightest degree tends to invalidate the now well-recognized causal relation of the *bacillus malarie* to the ordinary types of non-malignant intermittent fever. If Dr. Sternberg's skepticism should happily wander into the field of nosological study, he might perchance learn that the newly discovered germ of Laveran gives rise to the so-called pernicious or malignant type of fever only; that the quotidian, the tertian, the quartan, are all due to different micro-organisms. Dr. Sternberg will not say that he has not frequently observed at least half a dozen different micro-organisms growing upon a single culture ground. It is a well-known fact the *bacillus malarie* when cultivated is nearly always associated with several other types of somewhat similar micro-organisms, some of which are distinct bacteria, others are of the bacillus type; and sometimes associated with these are found *aspergillus albicans*, the *micrococcus-prodigiosus* and the *bacillus subtilis*.

About the first of June, 1886, in the pathological laboratory at the Hospital College of Medicine, in this city, a culture from a sterilized tube, prepared for the collection of air-dust, yielded an abundance of the *staphylococcus aureus* upon the same culture ground with the typical *bacillus malarie*. Laveran's discovery is no doubt of great value; and whether it is to be called *oscillaria malarie*, *protista*, or *plasmodium*

malariae, it is certain from recent experiments that they disappear very quickly from the blood under the influence of quinine.

The microbe is of a peculiar nature, presenting, in its primitive form, a hyaline coccus, resembling an amoeba adorned with flagella, which endow the parasite with wonderfully rapid powers of motion. Flagella have been observed to break loose from the body and swim about freely among the corpuscles in the blood plasma. The favorite food of the microbe is the red-blood globule, to which it becomes attached as a parasite. Sometimes the globule is filled with the spores of the microbe, presenting at first certain very minute, clear spots. These presently become pigmented, the globule breaks down, and the little spherical bodies at once begin active motion by the aid of their flagella. Chloride of sodium applied to blood drawn from a vein rich in these parasites quickly arrested the motion of the filaments, and caused them to assume what is described as their cadaveric form. Ten grains of quinine hypodermically injected into a man of one hundred and sixty pounds weight, forming in the blood a strength of 1.15000 part, yet arrested quickly the growth of Laveran's parasite, in fact, destroying it outright. For this reason Dr. Sternberg concludes that the microbe is an infusorial parasite.

THE BRAIN OF GAMBETTA. CEREBRAL LOCALIZATIONS.

An examination has recently been made of the brain of Gambetta, the great French general, who escaped from Paris during the siege in 1870, in mid-winter, in a balloon, and organized the formidable army of the Loire, embracing one hundred and twenty-five thousand men, in the brief period of two weeks, and who afterwards proved the most powerful advocate of civil liberty in all Europe, and did more than any other one man to establish that glorious state of freedom in that most favored and delightful land, *La Belle France*.

Agreeable to M. Duvall and Prof. Cornil,

Gambetta was an orator of the first rank. In point of development of the third frontal convolution of the left side, absolute perfection was reached. Broca, for whom this convolution was named, estimated its perfect development to mean the perfect function of speech, of memory, and the correct arrangement of words to express ideas. The brain, as a whole, was exceedingly light, amounting to 1160 grams only, being less than the average brain, which has been placed in Europe at 1400 grams.

From this it would appear that a man of inferior brain development, and (as generally taught) consequently limited general intelligence, may become so toweringly great as an orator, and have such wonderful memory, and be endowed with such force of expression in the classification of words as to present the ideas of other people in such an attractive manner as to acquire the credit of being himself intellectually great.

We protest most earnestly against the opinions of the gentlemen who conducted the examination of Gambetta's brain. Accepting their anatomical description, it necessarily proves that cerebral localization has not yet attained even a probable degree of certainty. Here we have the statements that the brain of a man known to be great in war, statesmanship, diplomacy, oratory, journalism, and law, had an exceedingly inferior brain, with those parts only which concerned the powers of speech, of memory, and the classification of words fully developed. The bare fact that this great man's brain weighed so much less than what the world has been pleased to recognize as a respectable average shows clearly enough the truth of Charleton Bastian's doctrine, that "Intellectual development depends more upon the relative amount of the gray to the white matter of the brain substance." The report of Duval and Cornil resembles very much an attempt made a few years ago by our esteemed friend, Prof. Burt Wilder, of the Cornell University, to formulate a system of anatomical technology, based

upon dissections of the domestic cat, or those brilliant experiments of Golz upon the brains of dogs. Upon the basis of Wilder or Golz, the attempt to formulate cerebral localization in man must necessarily prove a failure.

THE GROWTH
IN PATRONAGE

Of the Official Organs of the
British and the Ameri-
can Medical Asso-
ciations.

The *British Medical Journal*, the official organ of the British Medical Association, now about twenty-five years old, has a weekly

circulation of 13,600 copies. When Mr. Ernest Hart, the present editor, was called to the sanctum, the average circulation was less than forty. It quickly rose to five hundred, which has steadily increased to the figures first named.

The wisdom of the policy of those in charge of this journal could not find better indorsement, and it is safe to say the high standard of excellence attained in the growth and development of the *British Medical Journal* is an evidence of corresponding advancement in the ranks of the medical profession. Not only are the contributors to this publication men of excellent ability, but they are numerous and widely scattered over the world. Much after the fashion of our own country, do we find many of the ablest and best men remote from the great commercial centers. Surely there is no ground of comparison between London and Birmingham in a commercial sense, yet there are no Lawson Tait in London. Dr. McNamara, the renowned scholar and author, whose thorough investigations into the nature and causes of the great epidemics of cholera in India, and whose skill and ability as a surgeon have alike placed him at the head of his profession, did most of his great work away off at Calcutta.

The British Medical Association affords an example worthy the imitation of the profession in any country. In the United States we were slow to adopt the British

plan of establishing an official weekly organ of the National association. It was done, however, in 1882, and our association journal now circulates more than nine thousand copies weekly. There is reason to hope that by the time of the next annual meeting in June the circulation of the official organ will have attained as large numbers as our British contemporary.

About the best way to establish reliable and in every way profitable communication between the profession of the two countries may be found in the reading of the two great weekly journals—the one representing the profession of Great Britain, the other that of the United States.

These two, together with PROGRESS, can not fail to supply the earnest practitioner and student in medicine and surgery, in every department, with the newest discoveries and the latest improvements in all the methods of practice.

THE BRITISH
MEDICAL
TEMPERANCE
ASSOCIATION.

One of the curious features of the British Medical Association may be observed at the annual dinners.

The price of membership in this body is one guinea. Those who desire to attend the annual dinner may do so for an additional guinea. In connection with the annual meetings, there is what has been styled the British Medical Temperance Association. Those who take no wine at the annual dinner may have tickets at seventeen shillings each. These tickets are printed on blue card, and as the ticket must lie in front of each plate, the servants readily see who have the blue tickets, and are, therefore, enabled to avoid giving offense to members of the temperance association by offering them wine.

Total abstinence is what the blue card means, yet temperance is what the possessor usually claims. The attempt to make this distinction and to have it better understood has led to some controversial correspond-

ence, in which Mr. James Ridge, the honorable secretary of the B. M. T. A., announces that temperance is far wider in its meaning than total abstinence. He insists the object of the organization is to confirm and increase self-control, by the agency of total abstinence from certain liquors containing alcohol, whose physiological action is to diminish self-control and finally to abolish it. Mr. Ridge thinks alcohol in any form the material cause of moral evil, and that the doctor of the body should be the first to raise his voice, and thus cooperate with the doctors of the soul to elevate the race and raise the moral standard of the nation.

E Pluribus unum! Erin go braugh! Whoop la! Gottseidank! Look out for the Blue Ridge of medical temperance at the approaching International Congress!

A FEW
LITTLE BRIGGS
FROM TEXAS,

For which, with some others of like character, the Texas State Medical Society paid a prize of \$100 cash. [See Transactions 1886.]

“The whole phenomena manifested in the influence of body upon mind in certain physical states, and obvious dependence of the normal activity of the mind upon the healthful nutrition of the brain, the effect of intoxicating agents and of morbid poisons in perverting that activity of thought and feeling from a voluntary control, are strong arguments that the brain action is the culminating end in the higher and nobler characteristics of man.”

“I feel certain that in many instances where the mind seems to be weak, it is really physically incapable of obeying the dictates of the will power.” . . .

“All the states of the mind are states of change, and of these changes we become directly or immediately conscious by our own personal experience.” . . .

“This lack of education, together with ignorance in other branches, has ever been, and will continue to be, a great source of annoyance to the sanitarian and the philanthropist.” . . .

“Since reviewing in a brief manner the individual formation of habit in our physical, mental, and moral natures separately, we now come to look upon the results of our nature as a whole in the performance of automatic actions of the unconscious nature through the formation of habit in a certain line for an indefinite length of time.” . . .

“It is by this means that the somnambulist adapts his actions to surrounding circumstances, his brain being wholly unconscious of what is occurring.” . . .

“Prophylaxis is becoming the watchword of the day, and applies, too, no less to the mental prophylaxis than to the eradication of physical ailments; but not wishing or expecting to thoroughly elucidate this great question in this limited paper, I pass to the consideration of some of the causes and effects pro and con resulting from the influence of human automatism.”

The temptation to continue these little Briggs is very great. Remembering the fate, however, of the man who was “surrounded by circumstances,” we fear to provoke further elucidation of the vast importance “of closely observing automatonism in certain persons who are regarded as within the limits of normal mind action, to see the inevitable change in mental deficiency in the offspring of such an individual.”

Abnormal development, both physical and mental, may, no doubt, be due to errors of type. These Briggs may be therefore fairly set down as typical errors.

PRIZE ESSAYS
SHOULD BE
RESTRICTED.

The prize essay question is one to be restricted to the consideration of original experimental research, and no amount of word building should be allowed to enter for competition. Texas has now the mortifying reflection that her State Society awarded a prize for a piece of the worst composition that ever disgraced an attempt at writing a scientific essay. For genuine “highfalootin tomfoolery” it should indeed take first place.


PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

OF INTEREST TO OUR READERS.

It is the fashion now-a-days to offer premiums; it ought not to be so, and yet one must follow the fashion.

Both students and doctors are ready enough with their own names as subscribers to PROGRESS, and we have a constituency to be proud of, and yet we are not satisfied, and beg to say *to you*, that for a canvass among your friends, resulting in the sending to us of ten new subscribers at regular rates, \$2 per annum, for each name, we will forward our regards, carriage paid, in the shape of a copy of the PERSONAL MEMOIRS OF U. S. GRANT, 2 vols., nearly 1,300 pages, bound in cloth, the original work sold (only by subscription) at \$7, and published by Charles L. Webster & Co., New York, 1886.

 *This work has never been on sale, and is not purchasable at book-stores.*

AN INTERESTING OBSERVATION, by Prof. Marius Odin, M. D., Nice, Chevalier of the Legion of Honor, etc.—“Madame de G., of Austrian nationality, 25 years of age; married; no children; average constitution; lymphatic temperament; sent for me February 2, 1884.

“I was struck at first sight with her pallor; her skin and the mucous membrane of her eyelids and lips were quite colorless.

“This young woman complained of weakness and general atony, cephalagia, dizziness, vertigo, tendency to lipotynie, caused by sorrows, sitting up late at night, and generally depressing influences. There was gastralgia, with alternate constipation and diarrhea. Menstruation was irregular, and an abundant leucorrhœa was accompanied with gastralgic exacerbation. Her pulse was weak and depressible; there was a blowing sound with the first heart beat; very accentuated in the carotids. On auscultation I found weak respiratory murmurs, much prolonged expiration; dry and jerking cough. There was insomnia, and a tendency to night sweats

“Every thing had been tried—tonics of all sorts, arsenic, iron, quinquina could not be borne; hydrotherapeutics had given no results.

“I prescribed for Madame de G. the Vin Mariani Erythroxyton Coca, from which I had had much satisfaction on several previous occasions, but which I had never used alone.

“Want of appetite being one of the chief symptoms, and this keeping her general condition at a low ebb, I gave her a few doses of rhubarb, which; however, modified the situation but little. From that time I prescribed the Vin Mariani in doses of a claret glassful, morning and evening, a quarter of an hour before meals.

“At the first doses Madame de G. complained that it increased her dizziness. I assured her that this was a salutary and even necessary first effect of the medicine, and she consented, not without reluctance, to continue the use of the Vin Mariani. At the end of eight days there was a notable amelioration. Appetite appeared, food was taken, and the digestive functions were becoming more regular—day by day. I then advised the patient to increase the dose of Vin Mariani by two more glasses per day, either after meals or between—when ever she had to undergo some exceptional fatigue.

“Madame de G., who has since then resumed her daily occupations, tells me that, thanks to the medicament, that at proper times she can bear, without fatigue, long conversations, and, at the same time her vocal powers have acquired ampler development. At the end of a month's treatment her state was most satisfactory; there remained a slight blowing with the first heart-sound, which, however, was disappearing,

and was not at all perceptible in the carotids any more.

"This observation seemed to me very interesting and conclusive in this respect; viz: that it shows the action of the Vin Mariani, when administered without any other medicament, and, what is no less interesting, it shows its useful effects upon the vocal organs—a fact first determined by the eminent specialist, Professor Charles Fauvel, who has given to it the name of 'Tensor of the Vocal Cords.'"—*Gazette de Therap.*

RICHMOND, VA., Nov. 9, 1886.

Messrs. Battle & Co., St. Louis, Mo.:

GENTLEMEN—I have before me two samples of BROMIDIA purchased from different drug stores in this city. They are, apparently, so different in appearance, taste and therapeutic effect, that I want you to write me which one is made by you and which is spurious.

Sample No. 1 is reddish-brown in color, slightly opaque, and not very disagreeable to the taste. The dose of one or two drachms have a decided hypnotic effect.

Sample No. 2 is of a light greenish-brown color, perfectly transparent, and intensely disagreeable to the taste, being bitter and acrid, and bearing evidence of containing no coloring matter whatever. The dose of one or two drachms does not have as decided and prompt an effect as in the case of No. 1.

I write you for information on the subject, as I frequently prescribe BROMIDIA and am often disappointed in the effect. Both the samples of which I write were purchased from druggists who are considered reliable and first-class in every way, but there is certainly something wrong somewhere, and I must find out where it is or quit writing for BROMIDIA altogether, for unless I know where my prescriptions will be filled, I am by no means certain of the effects upon my patients.

Trusting that you will favor me with as early and explicit a reply as possible, I remain, very respectfully, yours,

CHAS. H. CHALKLEY, M. D.

RICHMOND, VA., Jan. 19, 1887.

Messrs. Battle & Co., St. Louis, Mo.:

GENTLEMEN—Your favor of the 13th inst. is just to hand. I owe you many apologies for not answering yours of November 16th, but was under the impression till now that I had done so. The bottle of BROMIDIA

came safely to hand and satisfied me beyond a doubt that the article (sample No. 2) had been getting in my prescriptions was spurious and totally unlike the genuine, both in physical appearance and in therapeutical effects. I send you sample by express, and hope you will pardon my unintentional neglect. Yours very truly,

CHAS. H. CHALKLEY, M. D.

PROMPT RESULTS.—I have been using PEACOCK'S BROMIDES considerably during the past year in my practice. In the treatment of various nervous affections, I have attained better satisfaction and more prompt results with it than heretofore with the simple solutions of the bromide salts. When ever a sedative is required, and to meet the conditions arising during the treatment of different diseases forbidding the use of opiates, I do not hesitate to recommend PEACOCK'S BROMIDES.

EDW. L. TONS, A. M., M. D.

376 W. Randolph St., Chicago, Ill.

OF COCA AND ITS TRUE THERAPEUTIC PROPERTIES.—Among all the pharmaceutical preparations of which Coca is the base, we must mention especially the wine prepared by M. Mariani. This skillful chemist has succeeded in so dissolving the active principles of Coca, in a wine which contains already some tannin and traces of iron, that he has made of the whole a tonic "*par excellence*." This wine is not only agreeable to the taste, but also has the virtue of never constipating; it is, therefore, a thousand times preferable to the different preparations of Cinchona Wine, of which the overated reputation has fallen considerably since empiricism has taken possession of it.

The *Revue de Thérapeutique Médico-Chirurgicale*, of June, 1876, mentions M. Mariani as one of the principal popularizers of Coca. Wine of Coca, which bears his name, is destined to render valuable service in the art of medicine. Dr. Cintrat, whom science has lately unfortunately lost, has confirmed the statement that Coca could be successfully used in the hygienic treatment of obesity, and for these cases particularly it is requisite to use only "*Mariana Wine of Coca*," as it contains no saccharine matter whatever. On this account it is applicable also to the treatment of diabetes.

We must conclude from all the clinical observations known to the present day that Coca is strengthening and stimulating; that it acts in a manner that can be called heroic.

in anemia, chlorosis, and rachitis; and that it is useful to all persons fatigued by study and prolonged labor, in order to restore vim and vigor.

We associate ourselves with Drs. Fauvel, Gazeau, Rabuteau, Cintrat, and many other prominent physicians, in declaring, after many clinical observations, that the *Vin Mariani* is especially efficacious in granulous pharyngitis, tonsillary angina, albuminuria, and diabetes; that it is the most desirable tonic, and that the stimulating properties on the nervous cerebro-spinal system can not be ignored. As to the action upon the larynx, we will terminate this article with a phrase of Dr. Charles Fauvel, "Coca is the tensor, *par excellence*, of the vocal cords."—*Union Médicale*, Paris.

DR. P. COLLIN.

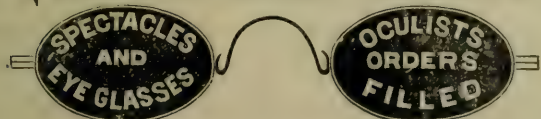
Arthur Peter & Co.: It is a pleasure and a duty as well, in these days of Nostrums and Panaceas, to extend to you my grateful thanks for the sample of "SYRUPUS ROBORANS" which your agent left at my office. This voluntary expression of my esteem for this compound is the more to be justified since the preparation of Fellow's is very unstable and yours is not. If the proximate principles, of which nutrition and assimilation are the outcome, are to be presented by modern chemistry to enfeebled absorbents, surely a positive and efficient remedy like yours is more desirable than an *olla porrida* containing glucose and decomposed organic products. I have the honor to be, your obedient servant,

EDW. C. HUSE, M. D., Ph. D.,
College Phys. and Surg., N. Y., '66.

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PHILADELPHIA, PA.

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DELIRIUM TREMENS.—I treated the most intractable case of delirium tremens it has ever been my misfortune to meet. I used all the usual remedies and the active delirium continued unabated for more than two weeks, the patient going into a typhoid condition, from which he rallied only with the most careful attention and judicious treatment. I assured him a second attack would be fatal, and for several months he faithfully abstained from the use of alcohol. About January last, however, he broke over and began drinking harder than ever, and I daily looked for the return of "snakes."

In the latter part of July last I was called to see the same patient and found him suffering with a severe cystitis, brought on by exposure and excessive stimulation. I assure you I undertook the treatment of the case with considerable trepidation, fearing delirium, as I had, of course, to withhold stimulants.

I used other nervines and found that the stomach was in such a congested condition that it would not bear them. Nervousness was prominent and the dread persistent. I put him on Celerina, which was well retained by the stomach, and promptly relieved the nervousness. In a few days, however, my supply was exhausted, and it was some time before I could replenish it, during which time snakes were beginning to appear; but as soon as I got the Celerina and began its use, they promptly retired. The patient is now well and uses neither stimulants or Celerina. I wish I could tell you all about this case. The patient says that no matter what occurs or what symptoms arise, his wife says, "take Celerina." I consider Celerina *par excellence*—the nervine.

Talcott, W. Va. W. S. COE, M. D.

THE Syrupus Roborans, of Messrs. Arthur Peter & Co., a formula of which accompanies their announcement among our advertisements, is a standard preparation.

THE California Fig Syrup has the indorsement of some twenty of the leading physicians of Louisville, and only needs a fair test to receive like commendation from every practitioner.

DENTAL DEPARTMENT.

CONDUCTED BY A. WILKES SMITH, M. D., D. D. S.

THE LOUIS-
VILLE COLLEGE
OF DENTISTRY.[Introductory Address of
Prof. A. Wilkes Smith, M.
D., D. D. S., Dean of the
Faculty.]

The specialty of dentistry is remarkable for its extreme antiquity. Many years before Christ the Greeks, Hindoos, and Egyptians not only filled and extracted teeth, but made artificial ones of ivory, bone, and wood. Gilded teeth have been found in the mouths of mummies at Thebes, while Belzoni discovered some made of sycamore wood in ancient sarcophagi. The celebrated Greek laws of the Twelve Tables refer to the human molars in these directions concerning funerals: "Let no gold be used, but, if any one has had his teeth fastened with gold, let it be lawful to burn or bury the gold with the body." Celsus, who lived one hundred years before Christ, recommended the use of a file for removing the point of decayed teeth. One hundred and fifty years later, Galen styled the teeth "true bones," but entertained erroneous ideas concerning the canine teeth, which he insisted should be termed "eye teeth," inasmuch as they received branches from the nerves supplying the eye. An Arabian, Actuís, discovered the foramina in the roots of the teeth, while the replacement of lost teeth by natural substitutes was practiced by Albacasis, another Arabian physician, eleven hundred years after Christ. Going back to the remotest period of dental history, we find that the most learned nations, such as the Greeks, Hindoos, and Egyptians, not only recognized the importance of dentistry, but regarded it as a special branch of medical science. Herodotus, who visited Egypt five hundred years before Christ, referred to the excellence of their medical specialists, saying "some treat the eye, some the head and ears, some the teeth, some internal disorders." Hippocrates, "the father of medicine," devoted much time to the study of

the teeth, which are mentioned in the work "De Carnibus." Aristotle also alluded to them in his writings. Actually three hundred years before the "wise men" followed the star to Bethlehem a pair of leaden forceps were hung up in the Temple of Apollo, at Delphi, by Eristratus, a Greek physician. He asserted that only those teeth should be removed which were loose or relaxed, and for which a leaden instrument was sufficient. The example of this heathen might be imitated by many dentists of the present day. This Eristratus and Herophilus, a fellow physician, were in all probability the first men ever known to have dissected the human cadaver. Condemned criminals were given up to them by the Emperor Alexander, and they once amputated an arm in the presence of the Emperor and his court, but, on seeing the patient recover, the spectators fled in terror, believing him to be a God.

In 1618 Helkiah Crooke, doctor of "physicke," published in London a very quaint book treating of the bony nature of the teeth, while in 1774 artificial teeth were introduced into France. These were made of ivory and bone, but human molars and those of animals were also used. Artificial teeth were then arranged on plates or fastened by gold and silver ligatures to their healthy neighbors. Toward the close of the eighteenth century such men as Pare, Fox, Bell, Nasmyth, and Hunter had given the world an almost complete demonstration of the anatomy and physiology of the teeth, but dentistry was still, in a great measure, an undeveloped branch of medicine, being mostly practiced by uncouth operators or by physicians whose knowledge of dental surgery was vague and superficial. Tooth-drawing was in those days an operation to be dreaded by the patient, such operations in fact being styled by one of our dental authors "heroic surgery." The year of the revolutionary outbreak was also made eventful by the visit to America of Mr. John Woofendale, a distinguished English dentist. He resided for a time in New York and Phil-

adelphia, and made for Mr. Walters, of the first named place, the first full set of teeth ever manufactured in America, but finally returned to England, where he died many years afterward.

The history of American dentistry dates from about the year 1784, when Joseph Le-maire, a Frenchman, came to this country with the French army and established himself in Philadelphia, where he not only practiced the transplanting of teeth, but instructed pupils in that art. Later on came Whitelock and the three Greenwoods, one of whom, John Greenwood, was dentist to Washington, for whom he made a set of teeth and received with the payment for the same a letter of thanks, signed "Your humble servant, George Washington." The first native American dentist, however, was Josiah Flagg, whose talents were evidently of a high order, since they secured for him, on his arrival in England, the warm friendship of Sir Astley Cooper, whom he assisted in operations in Guy's Hospital. James Gardette was the pioneer in the use of gold foil for fillings, instead of lead. He also substituted flat clasps for wires and ligatures, invented the mortise plate, and published an article on the transplanting of teeth. Horace Hayden, who began life as a poor cabin boy, and afterward distinguished himself as a dentist, seems to have been the first man to have appreciated the higher nature of dentistry and to labor for its advancement. Recognizing the fact that dentistry was something more than mere mechanical skill, studied medicine, received honorary degrees from two colleges, and was cordially invited to lecture on dentistry before the medical classes of Jefferson College, Philadelphia. Hayden was one of the founders of the American Society of Dental Surgeons established in Baltimore. He also wrote papers on geology and medicine, and was in all respects an ornament to his profession. Next to Hayden came Hudson, whose aim was to preserve the teeth in their natural state of health. Then we have Randall,

who practiced both dentistry and surgery, but was especially successful in pivoting teeth. Last of all came Koecker, who finished his brilliant career in England, where he built up a large and lucrative practice. Such men were the pioneers of American dentistry—men who struggled in the face of difficulties to advance the interests of their chosen calling and to benefit mankind by their ministrations. By 1834 the specialty of dentistry had made wonderful progress in the United States. Up to this date, however, the professors of dental science had, as a rule, been men of marked ability, possessing medical knowledge and endowed with reverence for their chosen calling. But soon outsiders, eager to make money easily, entered into competition with the better class of operators, and these outsiders—ignorant, grasping charlatans—quickly debased the dignity of their profession. People lost confidence in dentistry by having been victimized by such greedy impostors. Patients, whose mouths had been torn to pieces and whose nerves were shattered, were certainly not blamable for cherishing a supreme contempt for every member of the dental profession. It became absolutely necessary, therefore, to devise means for abolishing such practices and protecting reputable dentists in the discharge of their duties. After many futile efforts to form an organization of this sort, "The American Society of Dental Surgeons" was formed in New York in the year 1840. Similar societies were formed in other States, some of which were successful, while others failed. No sooner were these societies established than it became evident that the evils they were intended to remedy still continued to increase. Some better means for their suppression must consequently be devised. At this time pupils in dentistry were received and instructed by many dentists, but unfortunately the higher class of operators demanded such big prices for their instructions that pupils were forced to learn from second rate professionals and quacks whose terms

were more moderate. Some of these so-called dentists actually offered to teach dentistry in all its branches in four weeks time, and for \$30. Imagine, if you please, such men as these turned loose to practice upon the public.

Chapin A. Harris, a man of high standing in his profession, indignantly determined to abolish such disgraceful practices. The profession of dentistry was to his eyes a high and honorable one, its object being to benefit mankind, and therefore entitling it to be ranked as a specialty of medicine. He therefore applied to the various universities and colleges of medicine, urging the establishment of a Department of Dentistry in order that students might be properly taught, and thereby rendered an honor to their profession and of benefit to their fellowmen. They refused. But Dr. Harris was a man not easily daunted and discouraged. In conjunction with several liberal-minded professional brethren, he obtained a charter and founded the Baltimore College of Dental Surgeons, in the year 1840. Since that time fifteen public institutions for teaching dentistry have been established in this country. Schools and associations being founded, dental legislation soon followed as a matter of course. State after State passed enactments forbidding any save legally authorized persons to practice dentistry, and compelling such persons to obtain licenses from a State Board, these licenses being subject to the same restrictions as those issued for the practice of medicine. Alabama, then the State poorest off in reputable dentists, was the first to pass an enactment, and its example was followed later on by nearly all the States and Territories. The progress made in dentistry since 1840 is simply marvelous. Books and magazines devoted to the interests of this specialty have multiplied over the country. Dentists occupying high rank in their profession have found time to take up the pen, and we may point with pride to such men as Harris, Taft, Richardson, Bell, Magitot, Flag, Koecker, Spooner,

Hayden, and others equally gifted as authors and operators. Instruments, too, the most delicate and ingenious, have been devised for the use of dentistry, until, at the present day, the mechanical wants of our specialty are far better supplied than those of any other.

As a natural consequence of good schools, good literature, good legislation, the dentist of the present day has so raised the status of his calling that the proudest universities, such as the University of New York, Michigan, Harvard, and Pennsylvania, have recognized the dignity and importance of dentistry by creating dental departments. Even the medical schools, whose doors were so proudly closed on Mr. Harris, now admit the claims of dentistry to be regarded as a special branch of medical science. The American Medical Association created a section of dental and oral surgery, as also did the International Medical Congress. It is pleasant to note that dental institutions are rarely ever unsuccessful; a notable exception was the Transylvania School of Dental Surgery, established in 1850 at Lexington. It was officered by an able corps of professors, prominent educators in the Transylvania College of Medicine, but the gloom of night soon settled upon this once proud institution, and Kentucky to-day is reaping the reward of this failure in the miserable practices of quacks and charlatans who thrive and abound in our midst. That ignorance of true dentistry pervades the upper classes of society is evident, since we find this horde of so-called professional men encouraged, patronized, and in many cases even praised for their ignorance by physicians of high standing in their profession. Men who assert that when the dentist goes beyond the dental arch he is out of his sphere, hereby encouraging the miserable, small mechanic in his petty ideas of a grand specialty, when, in fact, he should be mending clocks, or an umbrella, or better (if his mechanical ingenuity will bear cultivation) pursuing the honorable vocation of a black-

smith. Let me say I do not wish to be understood as depreciating the mechanical portion of this specialty, when it can be controlled by a cultivated, scientific mind, and directed by the cunning hand of the educated artisan; it is a power which every intelligent dentist may employ for the greatest benefit to mankind. I merely wish to lift my voice in protestation against the popular idea that any petty mechanic is good material for a dentist, since in many instances men of the highest mechanical ability are not competent to become practitioners of this specialty.

A broad, liberal, scientific education is the basis upon which the structure for this calling must be built. The surgeon does not deem it necessary to go into the shop and make his splints, his appliances, his artificial legs and arms; the ophthalmologist does not consider it his duty to make glass eyes or lenses which he adjusts day after day; yet each must exercise scientific mechanical skill if he would be proficient in his specialty. So I claim for the dental specialist. •The manufacturers of many appliances for correcting irregularities of the teeth; the making of artificial structures, and other work done in the laboratory should be delegated to the dental artisan and superintended by the dental specialist, whose aim in life must and ought to be far more elevated. One of the many reasons for combining a medical with a dental school is on account of the present state of ignorance with the general practitioners with regard to the dental organs, and also the ignorance of the dentist as to general practice. The dentist should be an educated physician, devoting himself to his specialty in the infirmary, both operative and prosthetic. The answer to the question of what the dental specialist of the future will be depends largely upon the dental colleges in the land. As I have previously stated, nearly all the States and territories in this country have enacted laws regulating the practice of dentistry in their borders, thereby compelling every practi-

tioner to become a graduate of a reputable dental college or suffer heavy penalties for disregarding the enactment. We can no longer complain of the spread of quackery and humbuggery while we hold the means for suppressing them in our own hands.

As Dean of the "Louisville College of Dentistry," I make this promise on behalf of my colleagues to the public this evening: That we will not abuse the trust confided to our care. Every matriculant or candidate for graduation must have complied with all requirements laid down in the announcement. After faithfully and conscientiously performing our duty, we shall demand that he will do his. Our preliminary examination insures us against ignoramuses and failings in other callings. Our demand of the public is: Give us your best young men, or we will not accept any. We can not expect recognition as specialists in our honorable profession until we have taken this high stand, and now that we have reached it, let us maintain it. The Board of Curators of the Central University of Kentucky have shown sound judgment in establishing a dental department here in Louisville. Students will find this beautiful city an attractive place of sojourn. Its citizens are cultured and hospitable, its business interests prosperous, its churches and public institutions numerous and flourishing. We take just pride, also, in calling attention to our newly-established dental department, with its commodious operating rooms and laboratories. Every thing necessary for their proper equipment has been provided, while the curricula of the two departments, dental and medical, are so arranged that graduates in one may obtain the degree of the other by taking an extra course of instruction in that department. Moreover, the course of study is, in many respects, far more complete than that of similar institutions, embracing lectures and demonstrations by well-known physicians and dental specialists. Anatomy, physiology and histology, pathology and hygiene, chemistry, operative and pros-

thetic dentistry, palatial prosthtecio, materia-medica and therapeutics, general and oral surgery, the principles of medicine—all these are included in the curriculum of our institution.

Now, gentlemen, let me add here, concluding, that we start out to-day hampered by no professional animosities or jealousies. Our hands are extended in friendship to every one. Something higher than mere love of fame and reward should actuate us in the performance of our duty. Petty animosities, narrow envy, selfishness, and greed of gold too often mar the sacredness of our labors, and the time we should devote to the fulfillment of our duty is embittered and made less productive of good by attention to such puerilities. As representatives of a noble profession it will be our duty to maintain the dignity of the new college whose career we now set out to manage, to be faithful to the trust confided to us, and disregarding all things else, to toil on, patiently, hopefully, day after day, leaving our honest work to speak for us and bear witness to our sincerity of purpose. We are pledged to the beneficent curators of Central University to make the dental department an honor and an everlasting credit to their wisdom and prudence in creating it; and we look to you who seek our instruction to aid in guiding her destinies to a glorious future.

DENTAL
EDUCATION.
[Editorial in the *Independent Practitioner*.]

In America, the tendency is toward a higher education in dentistry, and since the peculiar course of some of our separate schools in cheapening the dental degree and conferring it upon doubtful candidates, foreigners especially, there has been a deepening feeling in favor of a degree that has not been, in a measure, tainted by unworthy men. Years ago, we drew upon ourself the censure of some of our separate schools by the statement that, in our opinion, the tendency of the times was toward the education of dentists in

medical schools with special dental departments. It was a simple, bald statement of what we believed to be a fact, whether of good or evil import. The course of the dentists in other countries in securing the establishment of dental professorships in the universities, and the sending of dental students to those institutions, has proved that we were correct.

AGAINST THE CONGRESS.	Norman W. Kingsley, D. D. S., etc., finding himself ineligible, by virtue of his lack of educational qualification, to membership in either the Dental Section of the American Medical Association, or the International Medical Congress, undertook to break up the Dental Section of the Congress. He got nine mechanics to join him in the strike, and they resolved unanimously to boycott the Congress and get up one of their own—a little one for a scent. Well, the scent has already spread over the country. Kingsley, poor fellow, is now crying for help to wash off this scent from his noisy person. The faithful nine, we suppose, have matriculated at some university, and hope, bye-and-bye, to get into the regular profession.
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CAUSE OF IR- REGULARITIES OF THE TEETH.	Dr. Talbot, of Chicago, says the cause of the increasing number of cases of irregularity is the premature extraction of the temporary teeth. He thinks the temporary teeth should be preserved. He thinks extraction of the temporary molar allows the injured permanent molar to come before the follicle of the cuspid appears, and therefore crowds it out of the arc.
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CONTRIBUTIONS WANTED.	It is intended to make this the most attractive department of PROGRESS. Contributions are respectfully solicited from the dental profession. Communications on practical subjects, brief, pointed, and numerous, will be at all times acceptable.
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PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN-
TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND
ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES-
SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF,
AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT
MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE
SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION
AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., MARCH, 1887.

No. 9.

GENERAL MEDICINE.

CARCINOMA OF THE STOMACH, LIVER, KIDNEY, AND MESENTERIC GLANDS. MEDIASTINAL TUMOR. CONTAGIOUS PHTHISIS.

A Clinical Lecture deliver-
ed at the Hospital of the
University of Penn-
sylvania, by

WILLIAM PEPPER,
M. D., LL. D.

*Provost of and Professor of
the Theory and Practice
of Medicine, and of
Clinical Medicine, in
the University of
Pennsylvania.*

[Reported for PROGRESS.]

Gentlemen, I shall first call your attention to these specimens, which were removed from a case which I saw in consultation some time ago. The patient was B. C., age thirty-one. His father died of phthisis at the age of thirty-six. His mother is still living, in good health, but somewhat dyspeptic. He was married, and had healthy children. For the past year and a half his occupation has been that of a grocer; previous to

that he had been engaged in an occupation in which he was constantly engaged in heavy lifting. He drank a great deal of beer, and some whisky. The latter often on an empty stomach. About six months ago he consulted a physician on account of attacks of severe pain in the stomach, which had been present for some six months. During that time he had been under the care of several physicians, but failed to obtain relief. Careful inquiry failed to show that the pain was influenced in any way by the taking of food. His physician believed

that he was suffering from gastric catarrh, and his diet was carefully regulated. After some months of treatment, with but little relief, symptoms of biliary obstruction presented themselves. On ausculting the heart a sound was heard, which was believed to be a valvular murmur. It was most distinctly heard at the angle of the right scapula. Another physician was now called in consultation, but he could not locate the abnormal sound, but after careful examination it was thought that there was an aneurism of the aorta with multiple abscesses of the liver. Later I saw the patient in consultation, and we concluded that there was pressure upon the vessels, due to a substernal growth or a collection of fluid, but the latter was excluded by aspiration. The pain was never very great. He had a shooting pain, with drawing up of the left testicle. Biliary products were found in the urine. Albumen was never detected, except during the last few weeks of life. Death occurred two months ago. Shortly before death diarrhea set in producing intense emaciation.

This is the substance of the history of the case as sent to me by his physician. The young man had a reasonably healthy history, with the exception that there was some tendency to phthisis in his family. He had been engaged in an occupation requiring heavy lifting; he had been intemperate; and as you have heard, he began to suffer with attacks of gastric pain, not increased nor on the other hand relieved by eating. These attacks were not attended

with vomiting, and it was natural to attribute them to gastric catarrh, possibly associated with gastralgia. Next came jaundice of a persistent type. I have no doubt that if it had not been for the fact that soon after this symptoms of intra-thoracic trouble made their appearance the condition of the stomach and liver would have received more minute study, but the symptoms referable to these organs were entirely overshadowed by the evidences of grave thoracic disease. These were distress in the sternal region and over the heart, a murmur heard most distinctly over the posterior portion of the chest, near the right scapula, followed by puffiness of the face, not explainable by renal disease, but evidently dependent upon obstruction to the return of the venous blood, and later by œdema of the left arm, due to pressure on the subclavian vein.

When I saw the patient he was lying in bed. There was decided jaundice, and marked distention of the superficial veins over the upper part of the chest, neck, and face. The breathing was difficult, but there was no stridor, no alteration of the voice, no difficulty in deglutition, no inequality of the pupils, and no inequality of the radial pulses. There was then no evidence of pressure backward, either upon the trachea or œsophagus, or of pressure upward, involving the cervical ganglia of the sympathetic, or of such pressure as would interfere with the flow of blood in either subclavian artery. The murmur which has been mentioned was audible, although it was not a strong murmur. It was most distinctly heard along the posterior border of the scapula. Inspection of the front of the chest showed a fullness of the upper sternal region. On percussion there was absolute flatness over the first piece of the sternum, and this flatness extended at least one and a half inches on each side of the sternum. It extended from the notch of the sternum to the fourth rib. Percussion did not cause pain. On palpation no pulsation was felt

except when the patient bent forward, when a feeble pulsation was detected. So feeble was this pulsation that I felt satisfied that it could only be a transmitted one, or if it were due to aneurism, the sac must be almost entirely filled with fibrin. There was no thrill, and there was no bruit.

The examination strongly indicated that there was a substernal collection of some kind. The history of the case might have served well enough to indicate the existence of aneurism. The age and the occupation were favorable to this view, and we had a large area of flatness on percussion. An aneurism would of necessity be a large one, which would produce so much dullness, and so much prominence. The pulsation as I have said was extremely weak, and only felt when the man leaned forward, so as to make the arch of the aorta press against this mass. The absence of the bruit, and the absence of thrill have also been noted. An aneurism of such size should have caused pressure backward upon the trachea, and upon the œsophagus, and should have interfered with the recurrent laryngeal branch of the pneumogastric nerve, and should have caused inequality of the radial pulses. The question, whether or not this was a circumscribed abscess in the anterior mediastinum in contact with the heart or aorta was considered. The possibility of a solid growth was also discussed. The absence of marked fever was against the view of abscess, still the fact that the man had over-exerted himself, with the history of gastric and hepatic symptoms, and the hope that the condition might prove to be an abscess capable of relief led us to entertain this possibility, although the evidence did not seem to be in favor of it. This condition of substernal abscess simulating aneurism is not rare. We decided to try exploratory puncture. I introduced a large trocar, one half inch to the left of the sternum in the second inter-space, feeling sure that the pulmonary artery had been pushed to one side. If this had been an aneurism.

I think that the puncture would have done no material harm. Not a drop of liquid was obtained. Although I introduced the trocar an inch and a half the tissue it passed through was tough and gristly, and it was impossible to move the trocar. This showed that there was no collection of liquid. As you have heard, the case went on to a fatal result.

The post-mortem examination was made by the physician in attendance, who has sent me the specimens and notes of the examination. The body was extremely emaciated, with an intensely jaundiced condition of the skin. On opening the chest the sternum was found attached to the growth, and eroded to such an extent as to easily fracture. A large mass was found occupying the anterior mediastinum to the upper portion of both pleural cavities, and adherent to and almost completely covering the thoracic organs. At the cardiac extremity of the stomach there was a mass similar in character to that found in the chest. The transverse colon was also involved. The liver had a large amount of deposit of a similar nature, which encroached on the bile-ducts. The mesenteric glands were also affected. The right kidney was normal, but the left kidney was enlarged and extensively diseased. Dr. Crozier Griffith has made a microscopical examination of this growth and pronounces it to be carcinoma. This is a rare specimen, and you can see how it explains the symptoms. It measures six inches in its transverse and vertical diameters, and four inches in an antero-posterior direction. It pushed the heart back, and the arch of the aorta is closely attached to the mass. The growth is loosely attached to the trachea, but does not encroach upon it in such a way as to have caused stridor in respiration. The nerve trunks are surrounded by the tumor, and it is remarkable that there was no evidence of disturbance of the function of the phrenic and pneumogastric nerves.

The stomach presents a beautiful speci-

men of a carcinomatous ulcer, three and a half inches in diameter, with raised lips, undermined, and excavated centre. On section it is found to present the same microscopical features as we find in the mediastinal mass. The location of this ulcer near the cardiac orifice serves to explain the absence of vomiting. It is impossible to say where the disease first started. As you know the disease was wide spread, involving the stomach, the colon, the liver, the left kidney, the mesenteric glands, and the mediastinal glands. If we base our opinion upon what is most frequently found, we should say that the stomach trouble was probably the primary one, and that there was secondary involvement of the liver and the kidney and the glands of the mesentery and mediastinum, where the disease developed so rapidly that it soon overshadowed all the other symptoms of the case.

CONTAGIOUSNESS	I wish now to show you a case of pulmonary phthisis, and
OF PHTHISIS.	

speak more especially with reference to the causation of the disease. The patient is forty-two years of age, and a farmer by occupation. He was married seventeen years ago. His wife died at the age of forty-nine. He had five children, two of whom are dead; one died of spasms, and the other was dead born. His wife died six months ago. He states that the house in which he lived was damp, and that there was a great deal of shade around the house. His wife had had a cough before they moved there, and it then got worse. During the summer it improved, and she was troubled with constipation, which was followed by diarrhea. The next fall the cough returned, and in December he moved to another house, but his wife did not improve, and died of phthisis four months later. The man himself was taken sick in November, and complained of shortness of breath and cough. He has had no hemorrhages. While his wife was sick he waited upon her, but at the time that he

began to complain she was not very sick. As her disease advanced he was compelled to lose much sleep in waiting upon her. He now has established phthisis.

My object in bringing this case before you is to consider its bearing upon the causation of this disease. This is of great importance in regard to such affection as phthisis, which presents itself in so many forms, and which is the largest cause of mortality in the human race. It is of much more importance to get at any thing bearing to the causation of disease than it is to study the changes in any individual case. The history of this case struck me as illustrating, very forcibly, one or two extremely important practical points—points upon which a great deal of investigation is still demanded.

In the first place as to the influence of location, and of residence upon the development of consumption. This is an important question. This does not touch upon the question whether or not the person has a predisposition to this disease. Is there any local condition which would favor the development of phthisis, whether the predisposition did or did not exist? If so, what is that local condition? Several years ago Dr. H. I. Bowditch, of Boston, carried out a series of investigations in regard to the local origin of consumption in the State of Massachusetts, by addressing questions to physicians in every township of that State as to whether there was any part of that township in which consumption was especially prevalent; whether or not there was any house in that township where there had been an unusual number of cases of phthisis, and if so, what were the characteristics of that portion, or what were the characteristics of that individual residence? The conclusion arrived at from an analysis of the answers of some four hundred physicians was, that excessive soil moisture from imperfect drainage of the ground rendered such an area favorable to the development of consumption, and that dampness of any

individual house, with exclusion to sunlight, particularly if that house is located upon damp ground, rendered that house especially favorable to the development of consumption in those who resided in it. A year ago I undertook a similar investigation in regard to the State of Pennsylvania; I sent out between seven and eight hundred circulars to physicians practicing in this commonwealth. A large number of answers were received, and have been subjected to rigid analysis. The matter at my disposal does not show so conclusively as that of Dr. Bowditch's the influence of damp ground or of damp houses upon the development of phthisis. The answers which I received went to show that while this influence undoubtedly existed there were so many other influences, and particularly the fact of hereditary tendency, that dampness of soil, and dampness of houses could not be considered as the main cause. This is a matter of such great importance that I can not allow it to rest here, but shall pursue my investigations farther. My belief is that provided a patient has any tendency to phthisis, or even has a strong tendency to catarrhal processes, residence in a damp house has a very strong developing influence as regards phthisis.

This case brings out clearly the question of the contagiousness of phthisis from patient to nurse, from wife to husband, or from parent to children. Here is a man who has had phthisis for one year. His wife was undoubtedly disposed to phthisis, but the husband was not specially disposed. The wife had some cough before going to the country, but after she had been there a short time it stopped. Then she took cold and the cough was renewed, and she also had involvement of the mucous membrane of the gastro-intestinal canal. The dry weather of summer came and she was better. In the fall cough again set in, and phthisis rapidly developed, and she died the following Spring; although she was removed to a drier location in the winter. The man

developed his phthisis shortly after the wife became sick. If he had not become phthisical until after her death, or at the time when he was broken down by nursing, lifting, and feeding her, and attending to her wants, we could have supposed that contagion might have played some part in the production of his condition. I am not a believer, to any considerable extent, in the contagiousness of consumption. As I have said in this case the disease began while the wife was not very sick.

The evidence derived from this case is rather corroborative as to the effect of damp residences upon those who are pre-disposed to phthisis. This matter is one of the greatest practical importance. So innumerable are the houses improperly constructed on ground imperfectly drained, in every State of the Union, that I assure that there is no single lesson that, as medical men, you can carry into your practice with more benefit to the community in which you reside than that damp houses are a constant, standing menace to the people living in them. Not only does consumption occur in those living in such houses, but also digestive troubles, Bright's disease, rheumatism, and many other affections depending upon congestive and irritative conditions of the internal organs with defective action of the skin.

HEART-STRAIN
AND WEAK
HEART.
BY
BEVERLEY ROBINSON,
M. D.,
NEW YORK.
[*Medical Record Report.*]

not believe, as is already shown by the title given above, that they should *all* be classified in the same division. They offer, in my opinion, various symptoms, are not invariably due to the same causes, and present frequently somewhat different and more or

Certain forms of cardiac incompetency, which I frequently meet with, have had for me, during the past few years, a special interest. I do not know the best term to apply to *all* these cases; in fact, I do

less well-marked physical signs. Occasionally there are in reality no evident physical signs which reveal the condition of cardiac weakness. In the analysis of my cases I find, unfortunately, that in many particulars my histories are imperfect, and especially so from the standpoint where I now desire to study them. In one way, however, I believe this deficiency is desirable, rather than the contrary, for it shows precisely how the cases impressed me at the time notes were taken and the patients under observation. Inasmuch as when many of the facts were recorded I had no idea of utilizing them to support my present views, they are, it seems to me, freer from bias than they might have been under different circumstances. I regret very much to add that search made latterly among hospital and dispensary notes has been relatively of little use to me, since the histories do not often relate to cases of the kind I desire specially to describe, or, if they do, mention is usually omitted of the facts which are of special value, and which pertain either to etiology or symptoms of certain forms of cardiac disease

Of course, I wish it to be understood, and particularly by those members of the society who have devoted themselves to the careful and exact study of cardiac disorders, that I have probably nothing *new* to offer to *them*. They are already familiar with the subject of my story; it merely remains to be determined whether they and I have interpreted some interesting clinical facts in a similar or somewhat different manner. Many years ago, as all of you know, Da Costa described what he called "irritable heart." This affection was first brought to his attention during the war of the Rebellion. Large numbers of soldiers were affected with it. It was seemingly brought on by long marches, fasts, exposure, mental anxiety, continued during many months. It was an affection characterized by dyspnoea, pain localized over the heart, palpitations, a frequent and sometimes irregular pulse. The heart was occasionally enlarged; frequently

it was of normal size. The observations of Da Costa have been corroborated by several eminent writers; among others by W. C. McLean and by Fraentzel. These authors found in soldiers cases of hypertrophy and dilatation accompanying symptoms of feeble and irritable heart, and resulting from long marches and the pressure of dress and accoutrements, or the hardships pertaining to army life in the field.

In 1865 Thomas B. Peacock directed attention to over-strain as a cause of heart diseases, and according to Leyden was the *first* author who described these cases with precision. Special forms of cardiac disease were recognized by him among the workers in tin and copper mines. In England, also, at a later period, Clifford Allbutt pursued analogous investigations with respect to laborers in other vocations. It was remarked by him that forge-men, barge-men, etc., or those workers who made excessive and prolonged muscular exertion with their arms, were sufferers from cardiac hypertrophy and dilatation. About the same time as Allbutt, Myers observed diseases of the heart among soldiers, due to strain, etc. According to Dr. Morgan, who wrote an essay entitled "University Oars," being a critical inquiry into the after-health of the men who rowed in the Oxford and Cambridge boat-races from the year 1829 to 1869, based on the personal experience of the rowers themselves, *rowing*, unless permanently indulged in, does not cause organic disease of the heart. Undoubtedly in persons predisposed to irritable heart, or other functional cardiac disorder, *rowing* increases it (Da Costa).

At the time Allbutt published his communication on a subject related to that of my paper, little attention had been paid by English writers to the mechanical causes of heart disease. Nothing could be found among them, except here and there a vague statement, as in Hope, where he says that rowing sometimes gives heart trouble. In foreign authors, at the time referred to, little

more could be gleaned. The interesting facts studied by Allbutt with much exactness, were, later on, graphically described by Fothergill. The late Dr. Austin Flint, in an admirable chapter on "Functional Disorders of the Heart," already in his work on "Diseases of the Heart," and subsequently in the successive editions of his "Practice of Medicine," showed how mental emotions, the influence of the passions, the improper use of stimulants, might all ultimately produce organic cardiac disorder. Quain also directs attention to the influence of the emotions and prolonged exertion in producing hypertrophy and dilation of the heart, and Seitz has insisted upon the various local and general symptoms caused by cardiac over-strain. In an article entitled, "On the Dilatation and Hypertrophy of the Heart, Which are not Produced by Changes in the Valves," by Delafield, many valuable facts bearing on this subject can be read. Finally, in the last number (October, 1886) of the *American Journal of the Medical Sciences*, there is a very complete and satisfactory summary of an article by Leyden, in the *Zeitschrift für Klinische Medicin*, previously mentioned, on "Diseases of the Heart Resulting from Over-exertion." So far as my knowledge and reading extend, there are few, if any, studies elsewhere to be found which afford a more thorough presentation of this matter. Still there are some features connected with similar and analogous cases which have seemed to me somewhat different from those thus far dwelt upon, at least in a forcible manner, and these are the topics to which I ask your attention.

In the hospital and dispensary work, and more particularly in the latter, which I have done for many years past, there scarcely passes a week in which I do not see one or more cases of chronic heart disease brought on mainly by physical over-exertion, and usually of prolonged character. Of course these cases differ from each other in respect of the *stage* of the disease when they come

under observation. They are unlike, also, in many instances, because the heart is not always affected in a similar manner without regard to the period of the affection. This may depend upon the nature of the pursuit of the individual, upon his habits of life, upon concomitant or previous diseases. A most important factor, in my opinion, is likewise *the individual himself*. We have no absolute means, so far as I am aware, of estimating the real strength of the heart as a vital organ, except through its power of resistance to certain depressing and altering agencies. We do not know, for example, in advance, and when it is a question of one man or another, whether or not the person who is under consideration possesses a heart which shall be strong to resist great and prolonged fatigue, exposure or want of rest, poor food, or bad hygienic surroundings, the inroads of acute or chronic disease, the evil effects of tobacco or alcohol, nervous exhaustion brought on by over-excitement, or the action of the passions. There is an individual energy or power in the heart of every man which can alone be properly estimated when it has been tested in different ways, subjected both to physical and mental strain. In this factor consists the tonicity of the heart, a normal property of its muscular tissue, which, if it be diminished, degraded, or lost, results ultimately, and almost surely, in more or less dilation or enlargement in size and weight.

Not a *true* hypertrophy, let us bear in mind, which *invariably* should mean increased propulsive power and energy, but rather that changed and morbid cardiac condition which carries with it always the idea of incompetency or lack of healthy force.

In this connection I beg leave to refer to illustrative cases:

CASE I. J. C., aged eighteen, single, cabin-boy on board coaster; has always enjoyed excellent health, and had uniformly good habits until three weeks ago. At that time, after a prolonged spree, in which he indulged freely in smoking and drinking, he

was attacked with sudden pain in the præcordial region, accompanied with dyspnœa and palpitation. Some cough and diarrhea during twenty-four hours. Complains now of moderate dyspnœa, which is constant. Exertion or excitement increases this symptom notably, besides bringing on cardiac palpitation. At present he sleeps well, and has no cough. He has not worked since he was taken with the symptoms referred to above, has not smoked, or committed any excess. Patient admits that he has had for many years "short wind" when he runs or exerts himself vigorously. During the past two years he has had no suffering from this cause.

Physical examination shows that the heart is normal in size; no murmurs; regular action; impulse at apex normal in force; both sounds in this region somewhat accentuated; at base, over pulmonic and aortic areas, the first and second sounds diminished in intensity, but clear; no thrill. Pulse, 88, regular, no intermissions, somewhat weak and depressible. The lungs revealed vesicular emphysema on both sides, moderate in amount.

Ordered, Tablets nitroglycerine, $\frac{1}{100}$ gr., t. i. d.

Three days later patient returned; no improvement.

Ordered, Tr. belladonna, five drops every six hours.

Patient not seen again.

Here, then, is an example of temporary cardiac weakness brought on, evidently, by immoderate smoking and drinking. There was no history of excessive work at any time, and nothing like physical strain, in the ordinary acceptation, had occurred. Previous to the initial symptoms mentioned, the patient had never suffered from symptoms which were referable to irregular heart action.

CASE II. P. B., married, merchant, aged forty-one, came to my office on November 11, 1881, suffering from severe cardiac palpitation. He stated that he had been enjoy-

ing his usual good health, when he passed through several hours of excitement and anxiety at a fire, which occurred six weeks previously, and had destroyed much of his valuable furniture. Since that time he has had frequent and distressing cardiac palpitations, accompanied with pronounced difficulty of breathing. The dyspnoea was not an entirely new symptom with him, as he had occasionally noticed it before the time of the fire, but never had it been so pronounced and unpleasant as during the past few weeks. On questioning this patient closely I found that he had cardiac palpitation sometimes when he had not taken food during several hours. Horseback exercise, of which he was very fond, never occasioned it.

Physical examination showed slight increased dullness to the right of the præcordia. There was a soft, blowing murmur accompanying the first sound, and heard with greatest intensity over the xiphoid cartilage. Murmur was also heard over apex, but with very slight intensity. No mention was made of any epigastric pulsation. Pulse, 84, weak, and depressible.

The patient himself was of large, vigorous frame, dark complexion, had passed several years in Cuba, and had had one or more attacks of biliary colic.

Tr. belladonna, tr. nux. vomica, and sp. ætheris comp. were prescribed in moderate doses, three times daily.

In this case mental anxiety and excitement were evidently the determining factors in causing cardiac incompetency.

I might cite examples in this place from my private records to show the effect of lithæmia, pronounced gout, atonic dyspepsia, anemia, excesses of tea or coffee, uterine disturbance, etc., in producing morbid cardiac conditions. In view of the time allotted to me I shall refrain. I desire, however, to read excerpts from notes of one case of notable cardiac displacement in connection with fibroid phthisis and old pleuritic and pericardial adhesions, in which there

were no rational symptoms of heart disease. A. S., aged twenty-four, iron-worker. Patient began to suffer five years ago from cough, dyspnoea, and moderate expectoration. Soon he lost flesh and strength, and had several pulmonary hemorrhages. At present patient has pain in his chest, and is pale and anemic. His appetite is good.

Physical examination revealed the usual signs of fibroid phthisis and pleuritic adhesions, especially marked on the left side of the chest. Heart: The greatest intensity of the impulse was discovered one inch to the left of the left nipple. No murmurs. First sound at apex accentuated; second sound not as loud as normal. At base, over aortic area, slight blowing murmur accompanying first sound; second sound diminished in intensity. Near left nipple a friction sensation is distinctly felt. A blowing murmur is heard in vessels of the neck, which is thought to be due to changes at the aortic orifice.

Patient improved under following treatment: Creasote, mj.; glycerine, ʒj.; whisky, ʒij. t. i. d.; and hydrarg. bichlor., gr. $\frac{1}{16}$, with tr. cinchona comp., ʒj., after meals. t. i. d. Local applications of ungt. iodinii were made to the chest-walls.

This case had a considerable interest for me from the fact that although the heart was drawn far away from its normal position, and the concomitant conditions were such as to interfere greatly with the circulation, yet the patient never in reality complained of the ordinary rational symptoms of cardiac weakness.

In the majority of cases of heart disease due to over-exertion, which I have encountered, the affection has come on gradually. There has been in these cases no sudden interruptions of morbid changes. Symptoms have shown themselves at first, and with some differences as to their manifestations, and subsequently more or less *visible alterations*, as indicated by physical exploration, have become evident in the heart and blood-vessels.

All trades of a laborious kind, and most trades should thus be described, may be efficient causes of chronic heart disorder. Yet some occupations especially predispose to cardiac incompetency, whether it be merely functional or organic. Notably are to be found in this class those vocations in which there is continuous work with the arms, or those in which heavy burdens are frequently lifted, and where, therefore, great occasional efforts act powerfully also in producing disease. In many of these cases vesicular emphysema, more or less localized, or generalized, is such an ordinary accompaniment that I consider it somewhat remarkable when I do not find marked evidences of its presence. Other lesions—as those of the liver, spleen, stomach, kidneys (usually of the nature of congestions) (Delafield)—are frequently secondary to the cardiac disorder, and modify it as complications rather than as causes. In order to be explicit and guarded in the interpretation of the cardiac cases I am studying, I would say here that I eliminate such as are found in individuals who have suffered previously from one or more attacks of well-marked articular rheumatism. I do this because rheumatism of the joints is such a frequent cause of *valvular* disease that its preexistence might invalidate some of my observations. In regard to the use or abuse of alcohol my standpoint is somewhat different. Alcohol, when it affects the heart injuriously, shows its evil results ordinarily in the muscular fibres or the vascular walls, and not directly at the heart orifices. Fatty degeneration of the former, with more or less atheroma of the latter, are familiar changes which bear witness after death to its poisonous effects. When, therefore, such changes exist during life, the development of symptoms of cardiac weakness may be considerable and rapid in a given case from a relatively small amount of physical strain. The diagnosis, however, of these changes in their early stages is a matter of extreme difficulty, and is, I believe, made at times

chiefly by reason of the manifest inefficiency of our ordinary means to strengthen cardiac systole, and by our tactile investigation of arteries within reach (temporals, radials).

Even these diagnostic tests may sometimes lead us into error, since our touch is occasionally deceptive, and our poor therapeutic results may depend upon imperfect knowledge and use of drugs, and nothing wholly satisfactory can be affirmed unless the patient dies and an autopsy is made. The first symptoms of cardiac strain or weakness are usually rational. These are, first, palpitation; second, præcordial pain; third, dyspnœa. All of these may be present; one, two, or all may be absent. Ordinarily the first symptom of over-exertion is cardiac palpitation. This symptom at first appears after prolonged effort, or some instance of *temporary* and *unusual* exertion. As an example of this kind the following case is interesting:

CASE III. *Cardiac irritability or heart-strain; slight cardiac dilatation, with incompetency of the mitral valve; areas of pulmonary emphysema; subacute gastritis.*—W. H. R., aged forty-five, driver, came to New York Hospital, out-door department, October 15, 1886. Patient has suffered from palpitations of the heart during the past twenty years. They began when he served in the United States Army in 1862. One month ago he was attacked with acute diarrhoea and profuse bloody stools. Since his convalescence, a period of three weeks, he suffers from a sensation of weight over the stomach, particularly after meals. He has moderate pain now at all times over the epigastric region, and this pain is notably increased by pressure. The xiphoid cartilage is very tender when it supports any weight. These pains came on suddenly after lifting a heavy case, and about one hour subsequently.

Physical examination to-day (October 15, 1886) shows marked epigastric pulsation. Apex-beat of the heart is not visible, nor can it be accurately located by palpation.

The area of superficial cardiac dulness extends from the xiphoid cartilage slightly to the left of a vertical line passing through the left nipple. The first sound of the heart is accompanied by a moderate, soft, systolic, blowing murmur.

R. Tinct. strophanthus 3 ss.;

Syrupi aurantii 3 ij.

M. Sig.—3 j. t. i. d. after meals.

October 18.—Feels better; has not sensation of pressure over the heart; pain in the epigastric region about the same. Pulse, 100; regular, no intermissions, depressible. Slight blowing murmur at apex; apex-beat still very difficult to locate, except by auscultation. Patient states that every time he has lifted a heavy burden during the past ten years he has suffered from pain in the region of the heart and over the left hip and from *palpitations*.

He has never suffered from dyspnœa after making excessive physical efforts until two weeks ago. Since that time, when he remembers having lifted a heavy bar of iron, he has had considerable difficulty of breathing, even after moderate exertion. During the same period, also, he has suffered from the sensation of a heavy weight over the stomach. He never had this symptom before the time mentioned. Patient's legs are not swollen; he passes about his usual quantity of urine. On examination there is no albumen present. Patient never drank to excess. His use of tobacco is moderate. No history of syphilis.

R. Repeat strophanthus.

Pulv. lactopeptin, gr. x., after meals.

October 25.—Complains of palpitation, occasional pain in the præcordial region, less dyspnœa, pain in epigastric region, eased by pressure and increased by walking.

R. Fl. extr. convallaria.

Sig.—Gtt. x. every four hours.

1. Sometimes palpitation shows itself when the patient is seated, and resting after a meal, or when relatively weak from lack of food during several hours. Occasionally patients are awakened from sleep at night

with most distressing subjective feelings of cardiac palpitation. As an instance of this kind I offer the following:

CASE IV. *Weak heart occurring without discoverable cause; palpitations; dull localized pain over præcordia; vague feeling of oppression; no evident dilatation or hypertrophy of the heart.*—Mrs. F., married, aged forty-two, gives a doubtful malarial history; came to my office on March 26, 1885. At that time she complained of the following symptoms: A raw sensation in the throat, no cough, expectorates occasionally a small quantity of white viscid phlegm, suffers a great deal from a weak and a dull sore feeling at the epigastrium. These abnormal sensations are relieved for a while by a moderate amount of light food, and particularly by stimulants. Patient has no flatulence and no other dyspeptic symptoms; bowels are regular. Patient is a great sufferer also from cardiac palpitations, which come on with no assignable cause. Her heart flutters and quivers, especially at night, when she first goes to bed, and this symptom is about equally severe in any decubitus. After sleeping a few hours, when she awakens her heart beats tumultuously and painfully. On physical examination the heart is of normal size, beats feebly, but no murmurs discovered. Veins of left arm are quite prominent. Patient complains of defective circulation—always feels tired. The weary, gone feeling is located especially over the præcordial region. If patient did not take a long, deep inspiration occasionally, she feels as if her breathing would stop altogether. Treated by stomachics, quinine and arsenic, heart tonics, during five weeks with no beneficial effects.

To some of these patients the heart appears to beat very rapidly, tumultuously, and with increased force. To others the heart flutters, quivers, beats irregularly, with diminished energy, and occasional intermissions are noted in the radial pulse. These different sensations are observed by the patient and reported to the physician.

I have known on several occasions such palpitations to be the cause of much mental distress, and particularly is this statement true of those palpitations which take place during the night and occasion great fright when the patient is awakened by them.

2. It is no unusual thing to have these palpitations accompanied by notable dyspnoea. This dyspnoea may also show itself previous to, or subsequent to, the palpitations. When it exists at the time the patient is suffering from palpitations it is very distressing. The patient feels, on rare occasions, as if he would actually stifle; and if in the recumbent position is obliged to raise himself to a sitting posture to obtain the air essential to the demands of respiration. Ordinarily the dyspnoea is much less, or milder in type, and is merely sufficient to aggravate and heighten the suffering occasioned by the palpitations. This is true when the patient is quiet. When any physical exertion is made the dyspnoea is *increased*, as a rule, and yet, singularly to say, I have seen those in whom moderate exercise in walking, or riding on horseback, did not increase dyspnoea. Dyspnoea may be the first symptom accused by the patient. He may have no cardiac palpitation; he may not feel his heart at all. He is simply conscious at times of the desire to inflate his lungs thoroughly, and thus inspire all the air possible. He has a somewhat oppressed, weighty feeling in the chest anteriorly, which is almost always present. He recognizes easily this abnormal sensation, although he can not always define or describe it. This form of dyspnoea may not be increased by the advent of cardiac palpitations, although it usually is. As an example of this kind, I offer the following history:

CASE V. *Cardiac weakness following moderate dilatation and hypertrophy, probably caused by rowing; congestion of the liver, accompanied with slight jaundice, perversion of taste, and dizziness.*—W. L., married, aged thirty-two, merchant, came to see me professionally June 4, 1886. He complained

of difficult breathing, the cause of which he was unable to assign. His bowels were regular, and there were no symptoms of dyspepsia. During many years he was very fond of athletic sports, especially of rowing, to which he had devoted himself. He has always been temperate in his habits, smokes moderately, and only drinks tea or coffee once a day. At present his skin is somewhat muddy, and his sclerotics have a yellowish tinge.

Physical examination shows somewhat dilated and hypertrophied heart. Its action is regular and tolerably strong. There are no murmurs. Moderate bulging of both sides of the chest anteriorly indicates the presence of pulmonary emphysema, which assumption is confirmed by percussion and auscultation. No bronchitis. Spleen normal in size. Liver *somewhat* enlarged, the enlargement being probably due to congestion. Two or three weeks ago, on presenting himself for examination at a life insurance company, he was refused, on the ground that he had an "athletic heart." His urine was carefully examined, and proved to be normal. I prescribed (June 15) carbonate of ammonia, belladonna, and ignatia, several times a day, and told him to continue the treatment several weeks.

November 11, 1886, five months after I first saw my patient, he wrote me that he had never felt better, and weighed twenty pounds more than when I last prescribed for him. "This may be," he writes, "because I took little or no exercise last summer. Following your advice I did not row at all, and previously I had been in the habit of rowing a *great deal* during at least twelve years back. I took about three bottles of the medicine you prescribed, and think this must have done the business, as after that I did not have any trouble, either from palpitations or from shortness of breath. My appetite has been splendid, I sleep like a top, and, in fact, my health has been generally fine. As regards my life insurance, I was passed by the New York

Life Insurance Company, and, after passing through the hands of about ten doctors, was pronounced a good risk."

3. Pain in the præcordial region is a symptom of considerable value at times, as pointing to cardiac weakness, but can not be relied upon as confidently as dyspnœa and palpitation in making this diagnosis. It may be present here, and be nothing more than the evidence of localized neuralgia in the pectoral or intercostal muscles. Frequently, pain in the epigastrium is undoubtedly due to heart-strain or heart-weakness; again, it is but the symptom of subacute gastritis quite independent of cardiac debility. These facts have been latterly insisted upon by Dr. P. Müller. In his recent thesis on the subject of cardiac dyspepsia, he "maintains that there are few affections of the heart which are not accompanied, at one time or another, by gastralgia, dyspeptic troubles, or even serious lesions of the stomach."

Pain in the left axillary region may be attributed to the heart, when it is caused entirely by localized pleuritis. There is a dull, heavy, constant pain seated over the right ventricle, which is usually increased by slight pressure (although not always), and which I have learned to believe is of cardiac origin.

The following case is an exceptional one, in which *pressure* relieved this pain temporarily:

CASE VI. *Aortic regurgitation; hypertrophy, with dilatation of ventricles; syphilis; no rheumatism; over-exertion; principal symptom, localized pain.*—M. D., married, aged twenty-eight, laborer, English, came under my care November 17, 1874. Patient has been suffering two and a half years. Previously never ill. Had syphilis ten years ago, followed by secondary symptoms; been a free drinker. His symptoms began with pain in the back. Six months later had pain in præcordial region. This pain persists at present; is most intense at night, and often prevents sleep. It is brought on during the

day by any physical effort. It can usually be relieved for a time by pressure over the heart. Patient often vomits during attack of pain. Has been slightly jaundiced several times; does *not* suffer from *dyspnœa* or palpitation. Pulse, 84; respiration, 20.

Physical examination shows aortic regurgitation, hypertrophy, and dilatation of heart.

Ordered iron, potass. iodid., empl. bellad., light diet.

Sometimes sharp, lancinating pains in the præcordial region, which show themselves suddenly and then disappear as quickly—pains which shoot up the neck and down the left arm, pains which have none of the intense and indefinable agony connected with them that mark those of true angina, and which do not leave behind points upon which pressure with the fingers brings out a cry—these pains, I believe, are frequently of cardiac origin. Not that I believe they are *seated* in the heart, but at least they show themselves often in connection with other evidences of cardiac strain, and are, moreover, present when there is no proof that they can be fairly attributed to changes in adjacent organs or structures.

Curious to say, I have met cases—not frequent ones—where the patient gave such a history, and showed such physical signs as could be explained solely by the preexistence of prolonged anterior effort, and yet, despite these facts, had never consciously suffered from the rational symptoms to which I have previously referred, and which ordinarily point, with unerring certainty, to heart-strain. In such examples we must interrogate the pulse and the heart itself. It is only at a later period that the urine, or the condition of the lower limbs, makes the presence of heart-strain additionally evident.

The pulse is usually, in the first stages of heart-strain, somewhat accelerated, and this is especially true if the strain of the heart follow any sudden or intense effort. It is also true when the heart has been called to do more work than it can accomplish during

the convalescence from acute febrile disorders, and when the fibres have not wholly recovered from physical changes which had previously affected them.

This statement, however, has its exceptions, and of these I would like to direct attention to the following :

CASE VII. *Heart-strain following chagres fever and pneumonia*.—T. M., single, student, twenty-three years of age, came under my care October 11, 1886. At that time he complained of frequently recurring nausea, and of an ill-defined feeling of malaise over the chest anteriorly. Patient contracted chagres fever on a trip to Panama three years ago, and since that time has often had symptoms of gastric irritability and torpid liver.

Ordered pil. extract colocynth., quinine, and belladonna, t. i. d.

November 6.—So far as stomach is concerned, feels well. Still complains of occasional headache, although it is less frequent and painful than it was some weeks since. Upon running a short distance he suffers from great oppression and his heart seems almost to stop. These symptoms come on at times immediately after slight unusual exertion; at times several hours elapse before they manifest themselves. Whenever they occur they invariably last several hours. Sometimes the oppression and apparent cessation of heart-beats occur without assignable cause. Occasionally the attack will occur during the night and awaken him from sound sleep. During its duration, which often lasts off and on several hours, he feels as if he would die. He had pneumonia of the right lung three months ago, and since his recovery from that disease has been considerably worse than ever before. Stimulants usually relieve him somewhat, even when he is suffering most acutely.

Physical examination shows pulse 72 per minute, quite full and strong, although somewhat irregular; no intermissions.—Heart: Apex-beat carried somewhat toward the left of normal beat, in sitting posture.

No marked increase of area of dullness over præcordial area; no thrill; no marked irregularity of cardiac beats appreciable upon palpation; soft blowing murmur at apex, preceding first sound of heart and following second sound. At base of heart, especially over aortic area, slight blowing murmur accompanies the first sound. This murmur is also heard in the vessels of the neck. The second sound of the heart at the base is *clear* and *normal* in strength.

Ordered tablets tr. strophanthus hispidus, āā M. ij., t. i. d.

November 9.—Patient has taken medicine regularly; feeling in better condition, and not so much troubled with oppression as he was; has had no palpitations (although has not run at all for some days); has not had such an intense desire to take a long breath from time to time, which previously was imperative and recurred constantly every few moments. Patient can wear his vest buttoned; before he began strophanthus he was obliged to open it to give himself some relief during his attacks of oppression. He is not nervous, and his symptoms do not appear to be due to flatulent dyspepsia. Respiration, 24, regular, somewhat shallow; pulse, 76, somewhat more regular. Heart-systole decidedly more forcible; blowing murmur at apex and base more marked than last time; no epigastric pulsation visible; urine increased in quantity. Repeat strophanthus, and in addition take pill of iron, arsenic, quinine, t. i. d., at meal-time. All very active exercise prohibited for some months. A day or two later patient left the city and went to Virginia.

November 28, I received a letter from him in which he still complained of feeble heart-action and persistent headache; his appetite was good and bowels regular. Despite, however, these facts, and although he lives a great deal in the open air, he has continuous cold extremities, and is unable to keep them warm.

In instances, on the other hand, where

the sum of physical effort each day is very considerable, as in the vocations of numerous workers (typesetters, shoemakers, plasterers, painters, weavers, etc.), although upon no single occasion is there any excessive physical effort, the pulse is ordinarily somewhat slower than normal.

The pulse which beats rapidly *may* or *may not* be weak and compressible. These qualities of weakness and compressibility are, however, adjoined most frequently to the slow pulse of prolonged heart-strain. Irregularity of the radial pulse beats is often observed in both classes of cases. Evident intermissions in the pulse are not observed in the primary stages of heart-strain. In fact, it is only when the heart-fibre is evidently somewhat degenerated, or the cavities have become manifestly enlarged, that I have been able to notice occasional intermissions. When sphygmographic tracings have been taken, especially in advanced cases, they have shown marked lowering of arterial tension.

The heart itself is in a variable condition. At first, and even subsequent to repeated and great physical efforts of *somewhat temporary* nature, the heart shows no evident increase of size. Its sounds may or may not be notably weakened. Sometimes both sounds of the heart are clear and markedly accentuated, and have almost a metallic clang or tone. This metallic ring I have heard far oftener accompany the first than the second sound. As I have remarked in the radial pulse, so I have noticed in the heart, that the beats are more rapid, as a rule, when there has been acute cardiac strain; when the strain is the result of almost continuous physical effort, during many years of severe labor, the heart-beats are ordinarily somewhat diminished in frequency as compared with those of perfect health. In either case there may be some irregularity in the force and rhythm of successive beats. True intermissions in heart-systole are only recognized when close observation already indicates advanced organic

changes, causing degeneration of muscular fibres, or their distinct stretching or dilatation. A soft blowing murmur, heard more or less distinctly over a large portion of the præcordia, is not infrequent. It is usually heard with most intensity near the apex. It may be loudest over the aortic area, or at the xiphoid cartilage, and indicate aortic regurgitation. Inasmuch as the former murmur sometimes disappears after weeks or months of treatment, I have under these circumstances considered it to be due to temporary dilatation of the mitral orifice, brought on by relaxation of the cardiac walls.

Except for its presence, it would be often difficult to say positively that the heart gave evidence of any organic change. This murmur, when it accompanies the first sound of the heart, may possibly be allied with the blood-condition of general anæmia. Whenever the murmur is not heard synchronous with the first sound of the heart, either at the base of the heart or in the vessels of the neck, it can not properly be confounded with a blood murmur. Frequently the sounds of the heart are somewhat reduplicated. This reduplication of itself *shows weakness of the heart*, and possibly that the walls of the *two* ventricles do not contract synchronously with each other. No thrill is ordinarily detected over the cardiac region. At first, as I have stated, there is no enlargement of the heart, and this organ may be considered as affected with mere functional disorder. As time elapses, however, and particularly if the daily strain, physical or mental, continues, the heart shows evident signs of slight enlargement, due to dilatation of the cavities and *thinning* of the cardiac walls. It must not be thought that it is invariably an easy task, in physical diagnosis, to make out in a satisfactory manner the signs of enlargement of the heart. Occasionally the accompanying conditions obscure this change very much. There are many instances in which more or less pulmonary emphysema is present, that either changes the heart's position or else

covers it in a large area. If together with this concomitant state the heart is beating feebly, inspection and palpation reveal but little, if any thing, that is reliable. Percussion is, also, very puzzling. We may be able thus to limit the heart accurately toward the median line, but above, below, and to the left it will often leave us in very considerable uncertainty. Auscultation will at times enable us to fix the greatest intensity of the first sound of the heart, and hence to assign the correct location to the apex; but even auscultation in instances of very weak heart will leave us in doubt, *i. e.*, in certain cases of convalescence from fever or other acute disease. Of course it should be understood that I am referring ordinarily to cases of slight enlargement of the heart, since in almost all cases in which the dilatation, with or without slight thickening of the ventricular walls, is at all pronounced it can be unerringly stated. In cases of heart-strain, or weak heart, which occur in the *higher classes*, it is a most unusual circumstance to find, concomitantly, evidences of arterial degeneration, at least among youthful subjects, occasioned by a similar morbid process to that which produced the cardiac disorder. Among the toilers, or those whose whole existence is one persistent manual effort, it is very frequent to note accompanying arterial changes which indicate commencing or advanced sclerosis. I have encountered already more than one case of sudden regurgitant murmur, heard with the second sound of the heart, and propagated downward and to the left, which I felt confident was due to sudden rupture of one aortic cusp. I have never met with any murmur which I thought should be explained by rupture of the mitral or tricuspid valve, but relative incompetence of these valves, as shown by rapidly developed murmurs, which continued during many months without change and despite appropriate treatment, have convinced me of the possibility of *acute dilatation* of the *mitral* and *tricuspid* orifices, which was more or less last-

ing, and at times, although by no means always, of serious import.

The following is an instance of the former kind, which I consider important and suggestive:

CASE VIII. *Acute heart-strain due to over-exertion in attending to household duties, etc.*

—A married lady, forty-one years of age, mother of several children, had quite obstinate bronchitis during several winters. Also had, after birth of last child, during a year or two, somewhat excessive menstrual flow at each monthly period. Other than these affections, patient has always been an extremely vigorous woman. During the late Christmas season patient tired herself a great deal with shopping, visiting, making arrangements for home entertainments, etc. She sat up late and rose early in the morning. She was on her feet almost constantly during fifteen to eighteen hours of the twenty-four, and had upon an average, during a period of one week, only about six hours' sleep each night. Two days after Christmas my patient was taken suddenly with pain in the epigastric and præcordial region, and fluttering or palpitation of the heart. The sensations in or around the heart were quite distressing and made her feel anxious. Patient also had a choking sensation in the throat, syncopal tendency, especially when she had been without food several hours, and intense headache. There were no signs of dyspepsia; bowels regular; no signs of pleurisy or intercostal neuralgia. Upon auscultation there was a soft blowing murmur synchronous with the first sound, and heard with most intensity below and inside the left nipple.

The second sound at the same level was also somewhat impure, but this impurity was scarcely sufficient to be characterized by the term "murmur." The pulse was somewhat frequent, quite weak and depressible, and showed slight irregularity of successive beats. In the course of one week relative repose, more prolonged sleep at night, and the use of wine of coca several

times a day, together with two or three milk-punches in twenty-four hours, restored the patient, apparently, to her former condition of vigorous health. The blowing murmur at the heart-apex had diminished, but not entirely disappeared. In the case just reported I recognize distinctly a case of acute heart-strain, moderate in degree, and of short duration. Cases similar or analogous to this one I have frequently seen. No doubt every general practitioner is familiar with them. At the same time I feel obliged to add that they are frequently ignored, and I do not believe that they have yet been emphasized sufficiently by writers on medicine so as to make the condition one which is to be constantly looked for, and, when encountered, to be energetically and judiciously treated. There are thousands of men and women in our large cities—brokers, bankers, business men engaged in large, important, and anxious business relations; there are mothers of families, spinsters, young and middle aged, devotees of fashion, frequenters of innumerable dinners and parties—who complain at times of being tired out, run down, having need of change, of rest, of freedom from care or dissipation, and who come to their family physician for advice. Usually such patients are treated as being anæmic, or neurasthenic. So they frequently are; but, after all, what is their most imperative requirement, and which is the *organ* most at fault and most needing rest? Many, many times I could answer truthfully, it is complete repose of body and mind that they require, and *the heart* is the *organ* which gives signs of special weakness—functional or organic, or both.

We should, therefore, in my opinion, recognize in all prolonged, continuous, and undue physical or even mental effort the source or origin of many morbid cardiac conditions.

As an example of the latter I offer the following:

CASE IX. *Weak heart; cerebral and spinal anæmia, caused by mental overwork.*—Mr. B.,

aged thirty-five, private tutor, married, smokes and drinks moderately, formerly much given to athletic sports, came to see me November 1, 1884. During past few years this patient has become mentally exhausted through continuous teaching and study. At present he complains of painful points over lower cervicle and upper dorsal spine. This morning had an attack of “goneness” at region of heart; relieved by whisky. During the past summer, and at the present time, patient has frequent fluttering, and very weak, distressing (“gone”) sensations in the præcordial region.

Physical examination shows weak, slow cardiac action, and markedly weak pulse; no other evidence of structural lesion of the heart.

Ordered tr. digitalis, ammonii carb., and ergot, in moderate doses, every four hours. Thermo-cautery applied to back of neck; mild galvanism to cord and brain daily.

November 22.—Heart continues to annoy him a great deal, especially at night.

December 1.—Complains of heart principally—feels weak from heart—otherwise would be strong and well. Yesterday had a pleasant evening at home; went to bed feeling bright and well. In a short time after going to sleep, awoke with a sinking sensation around the heart, accompanied by nausea, and numbness of the lower limbs. These horrid sensations lasted four hours, despite ergot-mixture, ammonia, local friction, etc. Condition of heart last spring was one of over-excitation; so much, indeed, was this felt to be true that my patient thought at times his heart would rupture from excessive action. At present there is extreme weakness of heart action, which is accompanied by a weary sensation in the back of neck.

Physical examination to-day reveals a soft, blowing murmur, not loud, heard at the apex of the heart, and in the vessels of the neck, and accompanying the cardiac systole. The countenance is pale and there is evident anæmia. No history of malaria.

Ordered pil. vallet, t. i. d. Smoking, tea, and coffee forbidden.

December 30.—Suffered a great deal from weak feeling around the heart three days of the present week. This unpleasant sensation is more relieved by the use of convallaria than by that of digitalis. Patient is stronger, less irritable, sleeps better, and his heart troubles him less frequently and less intensely than it did two months ago.

While a cardiac dilatation may become developed in the manner referred to, I can not doubt that not infrequently, after great or frequently repeated physical effort, myocarditis and fatty degeneration of heart-walls will surely be effected. Occasionally we may indeed look for a sudden rupture of valve, giving rise to all the secondary effects of such a condition, or for an inflammation of orifices, which will sooner or later become allied with chronic sclerotic changes at these regions and throughout the arterial system. One of the surest indications of heart-strain, or weak heart, when it is found, lies in the alterations of the urinary secretion. The bulk of the urine may not vary notably at first. Soon, however, it lessens or increases in quantity, and deepens in color, or becomes more watery. The former condition is that indicative of lowered heart-power, especially in so far as it affects the cardiac muscle. The latter state shows marked nervous irritability, and is apt to occur whenever the heart-strain is the result of excesses in which mental impressions are most active. I have remarked it whenever the cardiac strain was under the evident influence of intense study, late hours, undue excitement of business, pleasure, or sexual relations; of abuses in the use of tobacco, tea, coffee, and alcohol. A trace, and even a moderate amount of albumen has been noted in the urine more than once, when neither the number nor nature of the casts, the rational symptoms, or, indeed, the general condition pointed very clearly to the existence of chronic renal disorder. The

following case appears to me of some interest in this connection:

CASE X.—H. W. J. T., single, aged thirty-five, came to me last spring, stating that he had been refused by life insurance companies on account of presence of notable quantity of albumen in his urine. At that time he had few or no rational symptoms of disease of the kidneys. On examination, specific gravity of urine was 1.026; distinctly acid; no sugar; no bile; urea, sixteen grains to one ounce; micturition regular; albumen, fifteen per cent.

Patient was advised to drink abundantly of milk; to rest from business cares as far as possible, and to take tr. ferri perchlor. in moderate doses. At the end of June patient passed under the care of Dr. A. L. Carroll, of Staten Island.

On July 31, 1886, Dr. Carroll wrote me that the examination of urine on June 22 showed eighteen per cent albumen; on June 30, twelve per cent; on July 9, twenty-three per cent; on July 27, twenty per cent. Specific gravity from 1.022 to 1.028.

In specimen of July 9, two or three small hyaline casts were found; in others, none. Sphygmograph showed rather high tension. Dr. Carroll thought he detected some indications of "strain" of the right heart, and wrote: "You are, I presume, aware that he (patient) was for a long while enthusiastically addicted to athletics, especially to rowing contests, and that his mother has valvular disease. The absence of other symptoms in his case, and the persistently large quantity of albumen, seemed to me to negative a purely local causation of increased blood-pressure, particularly when considered in conjunction with the maintenance of the excretory renal functions." Patient "professes to feel quite well physically." "Whether to ascribe his disorder to obscure right-heart obstruction, to incipient waxy kidney, or to some persistent local lesion," was an undetermined matter to Dr. Carroll, as to myself, at the date of the letter referred to above.

Between July 31 and September 26, 1886, Dr. Carroll saw our patient twice. "On both occasions the albuminuria was increasingly persistent, and the last specimen of urine examined contained a very few small hyaline casts, though no other anatomical elements. The specific gravity was 1.031; albumen, twenty-eight per cent (by volume) (August 23). Total amount of urine daily about normal" (?). "The patient expressed himself as feeling perfectly well in all respects." Dr. Carroll and I at this time believed in the existence of chronic parenchymatous nephritis, although I agreed with him "that it was something new to find so few casts in this condition after an undoubted existence of more than five months, and probably much longer."

October 4, 1886.—Examination of urine showed—"specific gravity, 1.024; albumen, twenty per cent; two or three narrow and extremely transparent hyaline cylinders, . . . mere albuminous films, requiring delicate management of illumination for their detection." "In many hundreds of urinalyzes," says Dr. Carroll, "I have never met with a case which puzzles me to such an extent." A few days later Mr. T., at my suggestion, was put on tincture of strophanthus, with the approval of Dr. Carroll.

On October 1, 1886, I made the following notes at my office when Mr. T. called to see me: "Looks pale, although he says that he feels very well. No œdema of face or limbs; has had headache only once during the past few weeks; appetite fair; heart does not annoy him; has had once or twice cardiac palpitations on awakening suddenly at night; no dyspnœa; no præcordial pain. On physical examination I find heart-sounds rather weak; apex-beat somewhat difficult to localize by palpation; am able to do so by auscultation, and find it beats below left nipple in sixth interspace; no murmurs; regular pulse, 72; no pain in back." [Thought abuminuria might perhaps be due to deficient heart action.]

On November 8 Dr. Carroll wrote to me that he had seen Mr. T. twice since he began taking strophanthus, and continued his letter as follows: "On the first occasion there was little or no indication of its action in the sphygmographic tracing, and I increased the dose. At his second visit there was a diminution in the amount of albumen. On October 18 the specific gravity of the urine was 1.024; albumen, one fifth; on the 30th, specific gravity, 1.023; albumen, one seventh. In neither instance did I find casts. He says that he feels remarkably well."

On November 30, 1886, Dr. Carroll again wrote to me in regard to Mr. T. (in answer to my request by postal to know how he was) as follows: "Mr. T. has been unable to renew his supply of strophanthus for more than a week before his last visit to me (on November 21); but the effect of the drug seemed to be continued. The amount of albumen was at that time further reduced to one ninth by volume; specific gravity of urine, 1.026."

Remarks.—In view of the interest of this case, as it seems to me, I have requested Dr. Carroll, and received permission from him, to use the observations contained in his letters to me. I have not hitherto been able to decide to what degree precisely the condition of the heart has been instrumental in occasioning the albuminuria. That it does cause a part of it seems fairly probable. And, if this be true, I think we shall be prone to admit that, in certain instances, a heart which is undoubtedly somewhat dilated, and even though the usual rational symptoms of its incompetency are lacking—*i. e.*, dyspnœa, pain, palpitations—yet the amount of albumen eliminated by the urine may point indubitably to the fact. If our case had been accompanied by diminished amount of urinary excretion it would be, in my opinion, less conclusive than it is, in view of what we know of Bright's disease. Of course one such case as the foregoing does not prove my proposition; but, as I

believe I have seen analogous conditions several times previously, I now wish to call attention to them.

The following case is of interest in showing, among other matters, the fact that when there is notable cardiac weakness in connection with co-existing or pre-existing chronic renal disease, the use of cardiac tonics may increase manifestly the quantity of albumen eliminated by the kidneys, while the bulk of urine is not much increased even during the early days following its administration, and later diminishes considerably. This case is likewise of value as affording evidence of the fact that pulsation in the second, third, and fourth left intercostal spaces is not invariably found in cases of cardiac dilatation and weakness, contrary to the view ably supported by W. Russell.

CASE XI.—J. C. H. entered St. Luke's Hospital March 23, 1886. Patient had pleurisy in 1883, and since that time suffered occasional pains in præcordial region. Syphilis in 1882. Occasionally drank to excess. Formerly very athletic. Latterly urine increased in quantity; specific gravity, 1.012; acid; albumen, five per cent; hyaline casts; round epithelium; leucocytes.

Examination of heart.—Apex fifth space, just inside mammillary line; reduplication of second sound over apex, with roughening preceding first sound. Heart rapid, regular, and feeble; difficult to determine positively nature of murmurs; weakness of heart action especially notable over right ventricle; sounds of heart heard with greatest distinctness over lower portion of sternum and at epigastric region. There is a very limited area of pulsation just inside of left nipple; none at epigastrium, and none over left intercostal spaces. Some pulsation visible at root of neck on both sides, and over sternum, when patient lies in dorsal decubitus; pulse, 96; regular.

December 5.—R. Caffein citrat., grs. v., t. i. d.

December 14.—Albumen in urine, twenty per cent; passed thirty ounces.

December 19.—Albumen in urine, thirty-seven per cent; passed thirty-six ounces.

December 27.—Albumen in urine, six per cent; passed twenty-eight ounces.

January 3.—Albumen in urine, twenty per cent; passed twenty-six ounces.

January 8.—Patient died of acute pulmonary oedema.

Autopsy revealed both layers of pericardium adherent; mitral orifice somewhat contracted; cardiac cavities dilated; left ventricular wall thickened. Kidneys showed changes of chronic diffuse nephritis.

In marked heart-strain, and especially when there is a reasonable probability of the production of slight or moderate cardiac dilatation, the lower limbs are often oedematous. This oedema is always more marked toward the end of the day; in the morning it has almost as completely disappeared. In those cases in which the pulse is extremely rapid, feeble, and somewhat irregular, the heart also is very rapid and weak, palpitations excessive, and stomachal distress quite pronounced, and the cardiac strain appears to have affected directly the cardiac motor ganglia, or the sympathetic system more than the cardiac muscular fibre. While this statement is in part correct, there may also be present in such cases sufficient evidences of some enlargement of the heart mainly due to dilatation of its cavities. This cardiac dilatation may be secondary to a condition of slight anterior hypertrophy, and may be produced by kidney disease, endarteritis, or as the result of valvular disease, "and it is impossible," according to Janeway, "to determine how far dilatation of the cavity, or degeneration of the muscular tissue, is predominant in the production of the ensuing phenomena." I would say, in regard to this opinion, while often true, that at times our therapeutic means will enable us to clear up the situation, since in the case of pure dilatation decided amelioration will result from continuous judicious treatment, whereas this can scarcely be looked for if degeneration of the heart-muscle be present.

The case of W., who was presented by me at a late meeting of this society, admirably illustrates, in my belief, some of the preceding statements.

In those cases in which the pulse-rate is remarkably slow, the pneumogastric trunks probably lack their proper supply of oxygenated blood, owing to heart weakness. In some of the most remarkable of those examples reported by Flint, they were thought by him to bear evidence of morbid central disturbance associated therewith. Numerous cases in which idiopathic dilatation of the heart had advanced to the degree of producing swollen legs, a rapid, feeble, irregular pulse, and all the physical signs of dilatation, have been so much ameliorated under treatment that all these symptoms passed away. In one case reported by Fothergill, after four months' treatment with iron and digitalis, there was such complete cure that ten years later the patient had no feeling at all of weakness about the heart.

This stretching of the muscular tissue, with enlargement of the cardiac cavities, often follows conditions of passing debility, and may, under such circumstances, be recovered from completely. It is wise, however, to note that the general condition may often be dependent on the feeble heart rather than the reverse, which is also none the less true that the feeble heart is but a direct consequence of the adynamic state of the patient. A feature in the chronic affections of all our internal organs, which has long appeared to me one of extreme interest, is what may be determined the inherent vitality, or strength of each one, in different individuals. This strength can alone be properly estimated when it is submitted to certain tests. And while one person may bear these tests so well that apparently no evil results follow, another person, with an outward aspect of far greater vigor, will fail soon and utterly. This is one of those important facts that most trainers and all educated teachers of physical exercises for the healthy development of the body are becom-

ing daily more familiar with. Owing to this knowledge we are less likely in the future to see among our young men, brought up in schools and colleges, the diseases which undoubtedly result from excesses of rowing, tennis, bicycling, running, and all outdoor sports or contests in which vigor of body and strength of limb are essential. Some of these diseases, it must be recognized, give evidence of their presence by such signs as accurate physical diagnosis can generally discover and properly estimate. Alongside of such cases, however, there are a large number of others, I am convinced, in which no outward signs betray the tiring or exhaustion of the cardiac muscular fibre. It has been stated by some observers that when the heart-fibres are in a perfectly healthy condition they can not be thus strained, either by physical or mental over-exertion. Spillman maintains that "the heart wearies not. It is formed to beat. That is its rôle, its life. It beats sixty, seventy, and eighty years without wearying." According to such views the word "over-exertion" applied to the heart is not physiological.

Such statements, in my judgment, can not be supported by the close observation of cases which are daily seen in our hospital clinics. Certain rational symptoms, when duly weighed after the history of the patient is fully taken, and all pernicious modifying influences from disease of adjacent organs have been fairly eliminated, are as surely diagnostic of heart-strain as the same symptoms are when accompanied by evident physical changes, or the physical alterations are without the rational symptoms. In this connection I would cite the following forcible and truthful statement from Delafield: "In some of the cases the rhythm alone is disturbed; the patients have an irritable heart without any marked change in size. In other cases, in addition to the irritability, there are also dilatation and hypertrophy of one or both ventricles. . . . In still other cases, although the heart is enlarged, there is no change of rhythm, and it does

not trouble the patient." After all, the heart is a working organ of which it may be truly said that the principal, allimportant function is its ceaseless, intermittent activity. Now then, are we not prone to-day to look merely, or at all events too much, at pathological results of disease which are visible to the eye, aided or not with lenses of high power? And yet these obvious pathological changes are not the *whole* disease—indeed, they are but the effects of it, and behind and beyond are the far more important etiological factors which have previously been at work, rapidly or slowly, in developing and consummating it.

If I have made myself clear in the foregoing description of those forms of heart-strain that I have personally observed many times, I have convinced you that all *physical* and *mental* over-exertion is quite capable of producing it. The amount of physical effort or mental fatigue, or both combined, essential to produce evident injurious effects must finally depend on *the individual* who may become the sufferer; and whether or not these are the *sole* efficient causes of heart-strain, other causes may be present, which of themselves are sufficient to produce symptoms of heart-strain, and which, of course, when added to great physical and mental effort act more speedily and disastrously. Such causes are previous existing cardiac affections of the valves and orifices, chlorosis and anæmia, fatty heart in corpulent persons, old age, pregnancy, convalescence from acute diseases of mild or grave character (Leyden). In the latter instance, particularly, we shall frequently note symptoms of heart-strain after physical or mental effort of very moderate amount. I have known, under these circumstances, attacks of fainting and vertigo to occur, accompanied by a feeling of heavy weight in the præcordial region. When the hand was applied on these occasions over the heart, scarcely could the beats be felt during some time, and subsequently, when palpitations appeared, even though unpleasant and occa-

sionally painful, they were far less disturbing than the previous collapsed condition of the heart, which, according to the expression of such patients, seemed "dead like a stone." As an example of the manner in which mental fatigue and lack of proper hours of sleep influence the heart and produce rational symptoms of great functional distress, I would here refer to the students who sit up to the wee sma' hours of the morning. I have known a case in which, under like circumstances, at a given moment the heart would begin to beat irregularly and tumultuously, and concomitantly with these palpitations would also appear a sense of weight in the epigastric region and an uncomfortable feeling of oppression. All these symptoms would last after they appeared until the patient had fallen asleep. The following morning, on awakening, they had ordinarily disappeared.

Finally, there are cases in which no *sufficient* cause can be assigned, after the most careful examination and inquiries, to account for the apparent cardiac debility. In such instances, in the words of Dr. E. G. Janeway, "it has seemed to the writer a necessity at times to make the diagnosis of weak heart, it being impossible to determine the essential cause of such weakness. This relates to those cases in which the symptoms of cardiac disease exist, but the heart is normal, or nearly so, in size; the sounds, unless carefully noted, seem normal, no murmur is present, and there is an absence in the history and age of the true, or satisfactory, explanation for this state. I am perfectly willing to admit that after acute disease we should expect myocarditis, with pyæmia, perhaps suppurative myocarditis; with rigid radials, etc., coronary endarteritis; in a person, particularly a female, who had been a hard drinker and had fatty liver, fatty degeneration; in marked anæmias, fatty degenerations, etc." Dr. Janeway reports a case of a man, forty years of age, who after running some distance had a fainting attack. Subsequently he had symp-

toms which were variously attributed to phthisis and disease of the kidneys, but which Dr. Janeway explained by a weakened heart. The patient died, and the autopsy showed an old thrombus of the left ventricle, which may have formed during the syncope, and myocarditis fibrosa of the left ventricular wall. At no time during life had a murmur been audible, and, therefore, the diagnosis could be only surmised previous to death, which, however, was apparently correctly done by Dr. Janeway. Such instances are of very great interest, as showing how much "the nature of the onset and the character of the symptoms" are to be estimated in arriving at correct diagnosis in obscure forms of *weakened heart*. In some analogous cases, still the *cause* and *nature* of the weakened heart remain completely hidden, and indeed no adequate explanation can be given in regard to their presence. In this class, according to Delafield, "the physical signs of dilatation were evident." Taken absolutely, I do not believe this statement to be wholly correct, for I am confident that there are some instances in which reasonable doubt must exist as to the existence of any enlargement of the cardiac cavities. In the following remarks of Dr. Delafield, however, as will be appreciated from what precedes, I agree in regard, not "to most," but some cases of weakened heart, viz., that "no cause at all for the cardiac lesion could be discovered; and in those cases in which there was a history of sudden exertion or mental emotion, or of change in the wall of the heart, these conditions do not seem at all adequate to explain the cardiac lesion."

How are these cases of heart-strain and heart-weakness to be treated?

Manifestly the first thing to be done is to discover the primary essential cause of these affections and, if possible, to remove it. If the physical labor or occasional efforts be too great, a stop must be put to an injurious occupation. Occasionally it is necessary to abandon all work for a time and take a com-

plete rest. Of the rapidly beneficial effects of rest there can be no doubt. At first, and when the heart-strain has been but slight and is of fresh date, it may by itself be sufficient to rehabilitate these sufferers. In many cases, however, absolute repose is not essential. Abstention from work and moderate distraction, mental and physical, are what is most required. Sometimes change of scene will afford the greatest mental relief; and as the air is also changed at the same time as the occupation and surroundings, the good effects are, so to speak, doubled. In the beginning, light diet frequently repeated is found more useful than to attempt to overload these patients with food. Later on the most nutritious kinds of food, in relatively small quantities at any single time, are very desirable. Aids to digestion in the form of ignatia, bismuth, ingluvin, pepsin, hydrochloric acid, lactophosphate of lime, etc., are of moderate value:

When these fail to produce good results and symptoms of intercurrent gastritis are present, I now rely to a great degree upon counter-irritation by means of fly-blisters, several times repeated, or the thermo-cautery (Paquelin's). In two instances which I recall, I had very satisfactory results from "lavage" of the stomach. The latter method has, of course, no direct effect upon the heart in the way of invigorating or regulating it, but it certainly relieved gastralgic and dyspeptic symptoms in a very marked degree—and thus by reflex action, and by helping to restore normal digestive power, cardiac systole was decidedly strengthened. The use of blisters and the thermo-cautery are also, unquestionably, of very great and direct benefit to the gastric disturbance; and so far as the heart is concerned, I have likewise recognized their value frequently in stimulating its contractile power. While this is often true, it is not invariably correct, and occasionally one meets cases of heart-strain and cardiac debility in which blisters and the thermo-cautery re-

main without obvious beneficial effects upon the heart itself.

In these examples I have hitherto had the best results from the administration of tincture of the chloride of iron, in moderate and frequently repeated doses continued for weeks and months, while the liver was gently stimulated by tablet triturations of calomel, gr. $\frac{1}{4}$ to $\frac{1}{2}$, morning and evening, or oftener. The usual heart-tonics have sometimes proved inefficient; again, they have been evidently useful. I do not approve of the use of digitals in these cases, except in very moderate doses, combined or not with the iron tincture. If too much digitalis be given, instead of helping the patient it does him harm.

On several occasions, when digitalis has proved to be useless or injurious, I have had very excellent results from caffeine or convallaria. Certainly the latter drug is more easily tolerated by a sensitive stomach than digitalis is; and whenever the nervous supply of the heart is especially implicated, I believe that I secure more quieting effects from its employment. Among well-known cardiac tonics and stimulants for obtaining temporary good effects, at least, I know of no drug quite equal to coca. Given in the form of wine or fluid extract, it does much at times to restore the heart-muscle to its former tone. Of course, the good effects of any and all treatment will be closely allied with the stage of the disease when it first comes under observation. If the heart-muscle be healthy, with the exception of more or less loss of tonicity or contractile power, its complete integrity may be restored. If, on the contrary, the heart-fibres are already considerably stretched and the cavities dilated, while in some instances the patient may be restored to apparent health for a shorter or longer period, the probabilities are that ultimately renewed distress will be felt and further progress in the disease will take place.

Whenever accompanying the condition of heart-dilatation, be it only very moderate in

amount, fatty degeneration has already begun, the outlook is most serious. Even then these individuals may live a number of years, provided no great call be made upon the heart-force. But if efforts, mental or physical, be continued, or if an acute bronchitis become developed through over-fatigue and exposure, such cases often terminate fatally and in a very brief lapse of time. Perhaps a few days or weeks may bring on the fatal ending. In the instances which I have studied I have not felt obliged, except in rare instances, to give narcotics to allay temporarily great pain or dyspnoea. Certainly, in the first stages of heart-strain, when they are less likely to do harm, they are rarely required. Later on, in the midst of a complicating acute attack in the lungs or kidneys, I am very loth to employ anodynes, except in very small doses and at relatively long intervals. I owe this reluctance, doubtless, to the fact that, despite theories to the contrary, and the matured observations of skilled clinicians, I have known great harm to result in my own practice from what I now regard as a *very unsafe* use, especially of opiates. There are times, of course, when a small hypodermic of morphine, combined or not with atropine, will be wonderfully beneficial to the victims of heart-strain or heart-weakness. The cases that I have seen in which these admirable effects were produced were those where there was no complicating acute disorder of another important and closely connected organ, and they were those, also, where the suffering had been occasioned by relatively extreme effort producing a fresh outbreak of symptoms, which were the proof of acute grafted on old cardiac changes.

Under these circumstances, indeed, the introduction of morphine under the skin has often given temporary quiet to the dilated, laboring, and over-burdened heart when nothing else could. The safety-line, however, is very narrow; and while one eighth, one sixth, or even one fourth grain of morphine hypodermatically may frequently be

of immense service in restoring rhythm and force to rapidly failing heart-beats, a larger quantity will be likely to occasion rapid collapse and death.

From the foregoing study it may be reasonably inferred :

1. There is a class of cardiac disease to which the names of "heart strain," "heart over-strain," or "weak heart" may be properly given at the present time, and until this class has been more carefully subdivided.

2. In this class are now included cases in which there are no marked physical changes, and in which the symptoms alone indicate cardiac weakness.

3. In many cases the physical cardiac changes are more or less marked, and usually show some dilatation, joined or not with slight or moderate thickening of the ventricular walls, and accompanied or not with mitral or aortic incompetency.

4. There are cases in which the heart is obviously somewhat enlarged, although there never have been any morbid symptoms which showed cardiac weakness.

5. The causes of these affections are numerous; among them, however, prolonged or excessive physical exertion is often, although not always, prominent.

6. In some cases the disorder seems to be one more of neurosis than muscular deficiency, and may affect the function of the pneumogastric nerves, the sympathetic or the intracardiac ganglia.

7. In several instances the causes of cardiac disorder are very obscure or wholly unknown; and in such instances we must admit the existence of a *weak heart* primarily, that is sometimes first recognized suddenly and without premonitory indications which shall enable us to foretell such condition of cardiac debility.

8. Absolute or relative repose, appropriate diet, change of scene, chalybeates, cardiac tonics, counter-irritation, etc., employed judiciously, will do much in most cases to restore real or apparent cardiac vigor for a shorter or longer period.

DISCUSSION.

Dr. W. M. Carpenter was invited to open the discussion, and he remarked that he had never been able to entirely convince himself that the so-called "irritable heart" referred to by Dr. Robinson and described by DaCosta was a very frequent primary disorder. The relation between the centre of the circulatory apparatus and all other parts of the body was so intimate and constant that an exceedingly large percentage of functional disorders of the heart could be traced to external causes.

The carefully observed cases reported by Dr. Robinson, however, would lead to the conclusion that there is a certain percentage of cases in which what had been called irritable heart, or heart-strain, or weak heart, existed as a primary disorder. When, however, affections of the hepatic, gastro-intestinal, genito-urinary, pulmonary, and nervous systems were excluded, together with the affections belonging to the group of organic diseases of the heart, the number of cases could not be very large.

Dr. C. L. Dana had been very much interested in the paper, because attention had been directed to the possibility of the existence of muscular defect in some cases which are frequently, perhaps commonly, regarded as nervous disturbance of the heart, and the patients are told that they will get well. Still, it had been observed that in some of these cases digitalis had been taken with marked benefit. He was in some doubt, however, as to the extent to which we could speak of a weak heart, referring only to the muscular structure, and he was somewhat inclined to side with the view advanced by Dr. Carpenter. It seemed to him that the heart could not be regarded as a muscular organ alone, nor should its pathology be studied alone. For it is the end of certain sets of nerves, and in other parts of the body the pathology and physiology of the two go together, almost as much as do the fundus of the eye and the entire tract of the optic nerve.

Probably in most of the so-called cases of weak heart the trouble is nervous, and not muscular, and the therapeutics rather sustain that view. In addition, it has been found of late that there are actual changes in the cardiac nerves which produce symptoms resembling those said to belong to heart-strain. For example, in multiple neuritis there is almost always great dyspnœa and rapid heart action, with a pulse from ninety to one hundred without fever. In these cases also there is præcordial distress, and examination has revealed actual lesions of the pneumogastric nerve. Again, in cases of locomotor ataxy there are cardiac crises in which occur symptoms very similar to those said to be dependent on a weak heart without organic disease, and autopsy has revealed, here also, lesions of the pneumogastric nucleus and of the nerve. These cases show that diseases belonging to the nervous system are capable of producing lesions of the cardiac nerves.

Again, the author of the paper had reported one case which followed chagres fever. It was well known that it was not rare for neuritis to follow such fevers, and it was not improbable that there were changes of that kind in the case cited.

At the last meeting of the Society he referred to the fact that Semmola had discovered changes in the cardiac nerves, and to the affection he had given the name "cardiac ataxia," occurring in persons who had been subject to severe strain for some time. Another confirmation was the fact that these cases occur very infrequently among the laboring people, unless there are evidences of syphilis or arterial disease.

He would say, therefore, that severe physical labor alone does not cause heart-weakness.

There was another interesting point to which he would refer, and it was that asynchronous beating of the heart was mentioned as one of the symptoms of heart-strain, or weak heart. Cases of that kind had been reported, but he had often won-

dered if any such thing did actually occur. It seemed to him it was extremely improbable that the ventricles should contract at unequal intervals. Experimentally, he did not recollect having seen the ventricles contract asynchronously.

Dr. J. B. Hunter had been impressed by the clinical fact that many persons suffered from cardiac symptoms without appreciable organic lesion, and he had also been impressed by the fact that these patients were, many of them, capable of performing a great amount of mental and physical labor. He recalled the case of a woman, who died recently, who had suffered from marked cardiac disturbance during the last fifty years, but had conducted a large female seminary, and finally died of pneumonia.

He had had, in two cases, very marked cardiac symptoms in persons otherwise in perfect health, apparently. There was no evidence whatever of organic cardiac disease, and the cases had interested him very much with regard to the difficulty of making a prognosis. At all events, the condition of irritable heart, so called, according to his observation, was not incompatible with the performance of a large amount of work.

At one time he hesitated with reference to administering ether to these patients, but had subsequently learned that they take anæsthetics without inconvenience, thus giving support to the probable explanation given by Dr. Dana, that there is a nervous lesion apart from the cardiac disorder.

Dr. Robinson, in closing the discussion, said that in the study of his cases he had very carefully eliminated the sources of error to which attention had been directed in the discussion, and, as a matter of fact, had been surprised to find that he had so many cases recorded which could not be explained by secondary causes.

With regard to the point made by Dr. Dana, he had no doubt that in many instances it was correct, and the correctness of the view was sustained by the cases cited by Dr. Hunter. At the same time, he be-

lieved that his paper would prove useful in directing attention to these peculiar cardiac cases, and enable us the better to separate and treat them.

NEURALGIA—
A NOVEL
AND SIMPLE
REMEDY.

W. E. SCOTT, M. D.
SPRINGFIELD, MO.

Some weeks since I had my attention called by a layman—a thorough gentleman of undoubted veracity, and as influential as he is cultured—to

a remedy for neuralgia, which had proven successful in his wife's obstinate case, and which had, later on, cured several of her lady friends, to whom she had recommended its use. The remedy was so simple that I was inclined to laugh at its suggestion; but remembering my oft repeated assertion that I was willing to accept valuable knowledge from any source, whether from the learned professors of our colleges, from the practical workers in less conspicuous positions, who are engaged in daily battles with disease, and who are often compelled by emergencies to bring into play a natural talent of invention, or from our old friend, the grandmother, who has proven in so many cases suggestor of valuable as well as worthless ideas, I determined to test its efficacy. After experimenting on several mild cases with success, I at length had a case where, if successful results were obtained, I might safely recommend the remedy to the profession, so that some, whose opportunities in this class of cases being larger than my own, might give it a more extensive trial.

The case in question was a Mr. A., of this city, an old gentleman, some seventy years of age, who claims to have been troubled with facial neuralgia for about thirty years. His face was so tender that touching the parts gave considerable pain. He had never found any treatment which gave him more than temporary relief. After telling him of my short experience with the remedy he desired to give it a trial, and the

results have been so pleasing to both of us that I am convinced we at least have a valuable addition to our armamentarium in the cure of this troublesome and common affection. After the first twelve hours he claims there has been no severe trouble, and now, after about ten days of trial, he thinks he is free from his long standing ailment.

The treatment consists in the application of a closely fitting copper wire to the skin about the neck (worn constantly) in those suffering from the trouble in the face or head, and about the waist in those affected in various parts of the body. It is possible that this remedy may also prove curative of sciatica. I would suggest a trial.

As to how the remedy acts I can not say, and like many other valuable things we use, that point may never be fully and satisfactorily explained. The fact that it is a source of relief is the most important point to a practical physician, and we may well leave it to those who delight in beautiful theories (so frequently shattered) to study on this point. We know that cases of this kind have been cured by animal magnetism. We know that Dujardin Beaumetz, of Paris, has experimented successfully with the application of metals in the treatment of certain nervous diseases, and has transferred disease from one person to another by means of a magnet. We hear of certain ear troubles being relieved by the same means. Just how the magnet acts to produce such results is perhaps a partial mystery, even to the successful operator.

We learn that some cases, notably one of a prominent New York clergyman, have been cured of obstinate cases of hay fever by simply wearing a string of amber beads about the neck. Just how these bodies act on the skin to neutralize the condition which must be a predisposing cause of the disease is not nearly so important to the practical ones as the fact that it accomplished the desired end. It certainly can not be explained on the hypothesis that it exerts an influence

on the mind and by this means brings about a cure. Neuralgia and hay fever are *too real* to be so influenced. A better idea of electricity will probably throw much light on this and kindred subjects.

In any case in which this remedy is to be used it *might* be deemed expedient to prescribe a *placebo*, either in the form of internal medication, or as an outward application. There are also many cases which should have the usual remedies used during an acute attack, while trusting the constant wearing of the wire to produce the more permanent result.

This remedy is not given to the profession as a cure-all for neuralgia and kindred troubles. In every case a careful search or inquiry should be made for some local or constitutional derangement which might be the source of trouble. A frequent cause will be found in decayed teeth, or old roots which, of course, should be removed. Frequently an error of refraction, which can only be discovered and properly relieved by a competent oculist, is the source of neuralgias which sometimes are considered incurable. Those cases due to the excessive, or even moderate use of tea, coffee, or tobacco (and I have found many such), should be induced to use cocoa, "hot-water tea," milk, or water, in place of the more stimulating beverages, and in the case of tobacco, moderation or cessation of its use. Those with dyspepsia, constipation, and the like, should be instructed to use such food and treatment both hygienic and medicinal as will best relieve those conditions. In other words, this, as well as all other diseases, should be treated in the light of cause, when one can be found. In that large class of such cases which have no appreciable cause, or which, if found, seemingly can not be removed, there are many who will be agreeably surprised by the use of this simple remedy which I suggest. I recognize the fact that the results in a few cases do not determine the exact therapeutic value of any agent, and yet I am satisfied that we have, in this cheap in-

strument, a remedy within the reach of all, and which, if thoroughly introduced to the profession, is destined to be, in their hands, a means by which much of the suffering of mankind may be alleviated.

THE PRINCIPLE OF VACCINATION.

One of the great questions now about to receive experimental elucidation is, whether the virus of such self-limited infections as small-pox really destroys something in the system upon which the virus thrives, and thus prevents any future attack in the same individual, or the death of the germ produces a ptomaine which is poisonous to its own kind. However this may be, it is well established that the vaccinal method of protection is ample against small-pox, and promises something almost as beneficent in protection against yellow fever.

The new principle of modifying rabies by an attenuated form of the virus, after the introduction of the most active and virulent form of it from the bite of a rabid animal, seems to be a necessary part of the doctrine of M. Pasteur, with reference to his experiments with the rage.

This remarkable proposition of reinoculation of an infection to modify its course is, indeed, a practical application of the principle that the hair of the dog is good for the bite. It is just such hasty and unwarranted conclusions that lead Ferran to inoculate people to protect them against a disease which must begin locally in the alimentary tube, and the *materies morbi* of which need never, and does not in fact, enter the general system.

Has Pasteur really discovered a microbe which bears the same relation to rabies that the cow-pox bears to variola?

Upon an affirmative answer to this question the further discussion seems to depend. If M. Pasteur demonstrates the power of his virus to modify the more virulent forms already introduced by the bites of rabid animals, he opens a new field for vaccination.

GENERAL SURGERY.

**GASTROTOMY
IN A KNIFE
SWALLOWER.**

Joseph Hoffman, a
tailor by trade, resid-
ing at 1,207 South
Broadway, St. Louis,

Missouri, on the evening of November 17, 1886, having a pitcher of beer to encourage him in the performance of some amusing, and rather marvelous tricks, for the edification of his family, seized a table knife, nine and a quarter inches in length, and, starting the handle down his gullet, intending to catch the blade between his teeth; and, closing his lips suddenly, let it slip, and it went involuntarily and quickly into the stomach. Becoming frightened, he screamed aloud for help. He was presently seized with attacks of vomiting, attended with excruciating pain. Being frightened out of his wits, his wife summoned Dr. Hugo Kinner. Recognizing the extreme danger of delay, Dr. Kinner immediately summoned Dr. August Bernays, who made an incision in the linea alba, about five inches long, midway between the ensiform process and the umbilicus. The section complete, Dr. Bernays passed his hand into the abdomen, recognized the knife, which had assumed a transverse position, with the handle near the pylorus, the blade pressing against the posterior extremity of the fundus, a little to the left of the vertebral column. Feeling over the stomach, and feeling assured no perforation existed, Dr. Bernays turned the pyloric end of the stomach towards the incision, and grasping the handle of the knife conducted it out of the abdominal incision. A straight incision was then made, about five eighths of an inch in length, through which the knife was extracted with the finger. Not a particle of the contents of the stomach escaped with the knife, the incision being so small that the knife was extruded by pulling it through the narrow incision in such a manner as to stretch the opening, and in that way wiping off whatever of the gastric contents might have been adherent. Using

the thinnest kind of catgut, sutures were made one eighth of an inch apart, in such a way as to unite the inner border of the incision, allowing but a single stitch to penetrate the mucosa. A second row of stitches were introduced over the first, employing for this purpose fine Chinese silk, the sutures being introduced in such a manner that when they were cut short the peritoneum came together outside of them. The abdominal incision was closed with ten sutures, embracing the whole thickness of the abdominal wall, eight superficial stitches, and bichlorid of mercury gauze was so applied as to be kept constantly moist over the incision, and this was covered by a sheet of rubber tissue. An elastic rubber web bandage was placed around the body to hold the dressing in position, which was not disturbed for five days. The patient went to bed, and slept soundly all night, immediately after the operation. After the fifth day he was allowed soups, and after the tenth day no restriction was placed upon his diet, and on the fourteenth day he was discharged, entirely well.

ANTISEPTIC

LAPAROTOMY.

Dr. Robert T. Morris reports in the *New York Medical Journal*

a rare case of the presence of gall stones in the peritoneal cavity, in which successive attacks of peritonitis had developed a tumor involving the abdominal walls and the viscera in a common mass. This was excised, including the walls of the abdomen $2\frac{1}{2}' \times 3'$, the attached intestines separated and returned, the sinus made by the emigrating stones stitched to the external wound, and the whole opening closed. The section extended from the pubes to the xiphoid cartilage and was difficult to unite accurately. Thorough antisepsis was secured by the use of hot cloths wrung out of a solution of mercuric chloride; cat-gut sutures were employed. Twenty-eight days after the operation the patient walked a quarter of a mile to the doctor's office, entirely well.

EYE, EAR, AND THROAT.

EYE, EAR,
AND THROAT
HOSPITAL OF
BALTIMORE.
A YEAR'S
WORK.
BY
JULIAN J. CHISOLM,
M. D.,
Surgeon in Charge.

The Hospital work for the year 1886 has been continued without any interruption. 6,125 individuals have received treatment, with an attendance of 26,231 persons, an average of eighty-three patients for each working day of the year.

Of these 5,423 were white, and 702 were colored; 4,462 were affected with eye diseases; 846 had ear affections; 817 suffered with throat troubles. Upon these 1,272 operations have been performed for the relief of eye, ear, or throat diseases.

The Presbyterian Eye, Ear, and Throat Charity Hospital is far reaching in its good work, because it gives succor to poor blind applicants regardless of the State from which they come. Pennsylvania, the Virginias, the Carolinas, as well as Maryland, are the fields from which the largest number of patients are drawn. Physicians in these various States are beginning to learn that any of their poor patients needing the special treatment of this hospital are welcome to its wards, and receive every care. Every year adds to the number treated and also to the experience of the medical staff, which permits of the more skilled treatment and an increase in the percentage of successes. The patients represent all ages and conditions of life. The youngest patient was four days old, attacked with an acute inflammation which threatened to destroy sight. The oldest patient was one hundred and nine years of age, with sight impaired by cataract formation.

The surgery of the hospital is very large. During the year 1886, 1,272 operations were performed. During the nine years since the opening of this hospital the operations number 7,298, and the attendance 207,843 persons, the population of an im-

mense city. Among the operations for the past year were many of unusual interest. Forty-eight painful and destroyed eyes have been extirpated for disease or accident. Among them was the cancerous eye of an infant only two months old, the first born of a young married couple. The disease had started before the little girl was born. Fortunately when the child was brought to the hospital the disease was still confined within the eye ball, so that the removal of the eye with the cancerous tumor enclosed eradicated the horrible disease and saved the life of the infant; an escape from terrible suffering and sure death. The next youngest case of cancer of the eye ball was in a little girl two years and six months of age. It was also removed successfully to the saving of life. The oldest cancer case was eighty-two years of age. Seventy-three iridectomies were made for glaucoma and occlusion of the pupil; 180 foreign bodies were extracted from the cornea; 176 operations were made on the eye lids; 97 cross eyes were straightened; 124 operations were performed for the cure of tear drop.

During the year 127 cataract patients were operated upon, making for the nine years 673 cataract operations performed at this hospital; the youngest child operated upon during the year 1886 was under one year of age, and the oldest person ninety-two years old.

From this hospital as a center, valuable suggestions have been sent out for the benefit of suffering humanity. The gratitude of blind unknown people from distant shores comes back to the hospital for the good done to them individually.

In May, 1886, eight months since, a series of experiments were commenced at this hospital, having for their object the doing away with much of the restraint deemed heretofore needful for the successful treatment of cataract patients. At that time in all parts of the world there was a uniform method of treatment at the hands of all eye surgeons. Immediately after an

operation every cataract patient had both eyes bandaged with heavy compresses so as to exclude all light. They were then put in dark rooms, confined to bed, lying on their backs, with instructions to keep very quiet. They were restricted in their diet, and food was given to them while lying down. This treatment was usually rigidly enforced for ten days, at which time the bandages were removed. The patients were then allowed to sit up, with eye shielded by dark smoked glasses, and day by day a little more light was admitted into the chamber. The revolutionary treatment which was instituted at this hospital consists in substituting a strip of the thinnest isinglass plaster for the thick bandages and compresses, so that night from day could be easily detected through the diaphinous dressings. Light sufficient to permit of reading to patient was admitted into the chambers. Patients were not confined to bed, but were permitted to dress daily and eat their usual meals, in this way removing all restraint as to their diet. The pieces of retaining isinglass plaster were removed from the eye on the fifth day instead of removing the thick dressings on the tenth day as of old. So rapid was the convalescence under this new and rational mode of treatment that the patients could bear, comfortably, sunlight before two weeks had expired, and that without the wearing of smoked glasses. Here was a revolution indeed. A discovery that the very sensitiveness of the eyes injected and weeping, always found when the thick bandages were removed, and which had been a natural part of the convalescence, was due largely to the exclusion and restraining treatment in universal use, and not to the surgical operation.

The experiences at this hospital were published in a medical journal, and so important was it considered that it was copied from one to another till it went the rounds of the medical press abroad as well as at home. Now compresses, bandages, dark rooms,

and restraint are giving way to simple dressings, light rooms, and non-restraining treatment. To most persons, the dungeon-like darkness of the thick bandage, kept up for at least 200 long and dreary hours, is more terrifying than the operation itself. Now with cocaine the operation for cataract is painless, and a very few days of simple treatment restores the blind to sight.

It is not surprising that this new, rational, simple treatment, starting out from our Presbyterian Hospital, should have revolutionized the after treatment of cataract patients. A leading ophthalmic surgeon of England, in a recent article in the *London Lancet*, the leading medical journal of the world, writes: "My present experience with this new method of treating cataract patients permits me to indorse Chisolm's words." The revolution in the after treatment of cataract patients in this hospital is complete. From this time hence all bandages, compresses and dark rooms will be among the things of the past to be remembered only for the discomfort they occasioned. Even from distant places comes the statement that the new method of treating cataract patients in the Presbyterian Eye, Ear, and Throat Charity Hospital of Baltimore has been adopted to the exclusion of all previous methods. The good work done by our Charity Hospital is evidently not restricted to Baltimore, or even the surrounding States. It is far reaching, extending to very distant countries and to people who speak in unknown tongues their gratitude for release from one careful, and at all times very annoying treatment, now proved to have been always injurious.

A CORRESPONDENT of the *Medical Record* writes from Paris that the number of students regularly registered by M. Beclard, Dean of the Paris Faculty of Medicine, for the session of 1885-6, was 3,696, of which 533 were foreigners. Of the latter 108 were women, the greater part of whom were Russians.

OBSTETRICS AND GYNÆCOLOGY.

OBSTETRICS
AMONGST
THE ESKIMO.

BY

H. W. YEMANS, M. D.,

*Past Assistant Surgeon, U-
S. M. H. Service, Gal-
veston, Texas.*[From *Daniel's Med. Jour.*]

While serving as Medical Officer of the United States Revenue Steamer Corwin, during the annual cruise in arctic waters in 1885, it was my good fortune to be called to assist in a

case of obstetrics, which I consider well worth reporting, on account of the novel circumstances surrounding it.

Early in the morning of August 8, 1885, we came to anchor off Cape Sabine, Alaska Territory, where is a trading station of the Pacific Steam Whaling Company, in charge of the company's agent, Mr. Henry D. Woolff, through whose kindness, and by whose influence I was called in to see a native woman just on the verge of confinement, and was thus enabled to do what, as I believe, no white person has heretofore been enabled to do, viz., assist in and witness a confinement amongst the Eskimo. The day was cold and dreary, a drizzling rain falling and the temperature of the atmosphere 46° F. I found the patient to be a young woman of some twenty years of age, walking about, but dressed in nothing but the lightest cotton clothing. Though I found it disagreeably chilly, she stated that she was perfectly comfortable. This was her third confinement, and the pains had begun only about one hour previous to my seeing her, which was at 9 A. M. I immediately made a digital examination and found the os about the size of a silver dime piece, with pains which gradually became more severe, occurring at intervals of about ten minutes. There was also a considerable discharge of mucous, streaked with blood—the “show” of those less distant. Dilatation steadily progressed until at 10:30 the os was about the size of a silver dollar. At this time she was removed to a smaller tent, erected in the meantime, where she and I

were left alone. On one side of this tent was spread a deer skin and on the opposite side was dug a hole about eighteen inches square and four or five inches deep. Just at the edge of this hole was placed a log of wood about six inches in diameter, held in place by two pegs driven into the ground on either side of the ends. Immediately upon entering I was made to kneel down upon the deer skin and given to understand that under no circumstance must I rise to my feet. This was afterwards explained to me as absolutely essential to the future welfare of all concerned.

My companion maintained the kneeling or sitting position during the entire time of my stay there, neither standing up or lying down once. I had but time to make another digital examination, when I found the os still more dilated and the membranes bulging considerably, when the “waters” broke, which was announced by those waiting on the outside by a loud yell, immediately followed by the advent of the girl's mother, with a bag of plucked reindeer hair in her hand, with which she at once proceeded to line the hole previously mentioned, maintaining meanwhile the kneeling position. As soon as this was done the old woman left, and a “showman” or Eskimo “medicine-man” soon after took up a kneeling position at the entrance to the tent, gathered the flocks about his face and sang—in a low bass voice—a really pretty song of some two or three minutes length. This done, the young woman removed her drawers and took up her position over the hole mentioned, her toes resting on the ground on one side and her knees widely separated on the log on the opposite side. She supported herself by placing her hands on her knees and immediately began to “bear down” with “all her might and main,” her groans being answered by sharp cries to “bear down harder” from the old women and girls surrounding the tent. Desiring to obtain all the information possible, I allowed her to pursue her own course of procedure, I remain-

ing a silent but decidedly interested and observant spectator. Pains now occurred in rapid succession, she bearing down all the time and occasionally making pressure over the abdomen, stimulated by the cries and commands of those without. It was now 11:15, and in another thirty minutes the child was born. For the ten minutes only preceding its escape did the head press against the perineum, the body following the head almost immediately. At once, having prepared myself beforehand, I jumped to my feet and tied and cut the cord almost before she had time to communicate the fact to those on the outside, which brought forth a chorus of yells and screams of remonstrance. Very little hemorrhage occurred, and the mother, turning for a moment to ask me whether it was an *Ag-a-nar-ok* or *Ex-lily-gok* (girl or boy), began again to bear down and press with her folded arms the abdomen to expel the secundines. Her efforts were futile, however, which fact she told those in waiting, who told her to insert her finger into her throat and "gag" herself. This she did repeatedly for several minutes, the little fellow—it was a boy—meanwhile crying lustily from his bed of hair. Sympathizing with her in her vain efforts I asked, after waiting some time, if I should assist her, to which she readily assented, and I without difficulty extracted the placenta and membranes. This accomplished, she spoke to those on the outside, who brought a tub of warm water, which they pushed under the tent, beside which she seated herself and requested me to hand her her child, which I did. She then bathed, using soap, in quite a civilized fashion. This last procedure resulted from her intercourse with the whites, it being usually performed with urine, to which all contribute their share beforehand, being the fluid generally used for this purpose.

I learned afterwards that they looked upon me with not a little interest, and have inquired since concerning my welfare, as to come into contact with any thing connected

with the child (blood, secundines, etc.) by any one but the mother (who must bury them all) means certain death, at no distant day, to the person thus made "unclean."

Four days later I again saw the mother and child, when both were doing well, excepting caked breast and sore nipples, from which the mother suffered. One year has since elapsed, and I am told by those coming from that region that both are very well indeed.

I desire to supplement the foregoing by the recital of a few additional interesting facts not observed by me, but which I am convinced are correct.

After the child is born and the after-birth comes away, and not until then, is the cord tied, and then always by the mother, she using a small bit of flint or other hard stone for the purpose, which the child wears in a bag hung about its neck, as a charm, during its entire after-life.

Births and deaths are not allowed to occur under any circumstances in the houses used as dwellings, but should such an event by any accident occur, the place is immediately deserted and never entered again. Temporary structures, even in midwinter, are erected for those about to be confined, or who are considered as apt to die, to which they are removed, and in most cases left entirely alone.

In cases of childbirth the mother remains in this temporary structure four days, if a boy, and five days if a girl, the woman's mother or other female relative conveying the necessary food to the mother. The child is immediately put to the breast after delivery, washing, tying the cord, etc.

Deaths of either mother or child are rare, so I am informed, and confinements are very seldom attended with any considerable difficulty.

First menstruations occur at from twelve to fourteen years of age, and for one year afterwards the girl is not allowed to play with other children or to go upon either water or ice, like prohibition occurring during the menstruation of any woman.

It will thus be seen that pubescence occurs amongst these people at a much earlier age than is given by most authorities, and according to those who *ought* to know what naturally follows, is not of the cold, passionless description as we are usually told. Those who have wintered there tell me that entire days and nights are frequently spent in the wildest of sensual debauches.

These people know nothing of medication, except in cases of constipation, when copious draughts of seal oil are taken, they depending entirely upon "showmanism," which is nothing more nor less than witchcraft. In cases of obstinate disease, the person afflicted is made to fast for four or five days, and is then made to eat a piece of human flesh, coming from some person accidentally or otherwise killed.

If three or four children die before reaching the age of five years, those born afterwards are thrown away and allowed to perish immediately after birth, the same being done if the first three or four children happen to be boys.

TAIT'S OPERATION IN FACT.

It is rumored in a reliable circle that Mr. Lawson Tait recently opened the abdomen in a case of supposed ovarian tumor, and, finding a large ovoidal tumor, punctured it with a trochar, and let out a large amount of fluid. After tapping he cut off the neck and removed the uterus and its appendages. Opening the tumor it became apparent that its great size was really due to hydramnion, with twin pregnancy. The patient recovered, of course, and the gentleman who has let the secret out breathes it with great caution only. PROGRESS got it from an eminent Gynæcologist as a profound secret, but the chiel was present takin' notes, and, faith, we print 'em. It may be this is not a new operation, but it is not common in this part of the country, at least, and we do not anticipate any great rush upon our columns of reports of similar cases.

Vol. I, No. 9—32.

PATHOLOGY AND HYGIENE.

RENAL COLIC, PARASITIC AND CALCULOUS.

BY

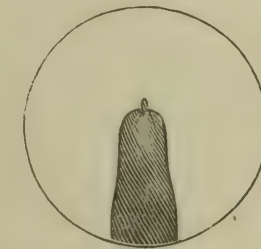
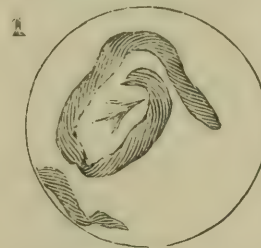
JOHN A. LARRABEE,
M. D.

Professor of Materia Medica and Therapeutics, and Clinical Lecturer on Diseases of Children, in the Hospital College of Medicine, Louisville.

[A Clinical Report.]

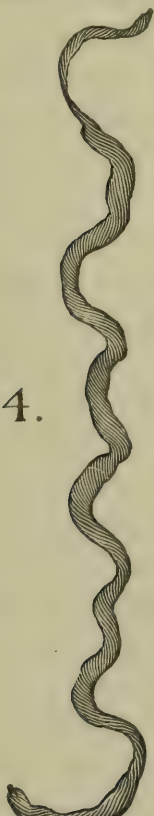
The history of this case dates back two years, at which time Mr. K., past the turn of life, German, stout frame and robust appearance, applied to me for treatment. He presented a typical gouty diathesis. Like all of this diathesis he possessed a strong constitution, great energy, and is quite indefatigable in his business. As a result of his excellent social and business standing, the comforts and luxuries of life were at his command.

I first saw him professionally in an attack of "kidney colic," or passage of calculi. Full doses of morphia with atropia hypodermically were necessary to relieve his agony, and, the next day, I had the satisfaction of seeing him pass several calculi, rather larger than those ordinarily passed, per urethram. I placed him at once upon antilithic and lithontriptic remedies. He continued to pass calculi and gravel grits for several months, and I have a phial filled with specimens selected. Under continued treatment they became smaller and less frequent, and finally ceased altogether. Then he enjoyed excellent health and had no return of pain. About a year ago, and while he was passing gravel, he called my attention to a peculiar looking substance which had passed



1. Shows torn fragments with a well defined tail end, natural size. 2. A head adhering to torn fragments of the body. This head is magnified six diameters. 3. Some calculi from the same patient, natural size and form.

in clear urine, looking very much like a small earth worm, and different from any cast or moulds of blood I had seen before. This I submitted to Prof. D. S. Reynolds for examination, who informed me that it was a worm, and belonged, he thought, to the Strongle family. With the exception of an occasional gouty reminder in the way of dyspepsia he remained well throughout the year until I was again called to see him January 11, 1887. I found him reclining, complaining of considerable pain in abdomen, right side, running down into the pelvis. He stated that it did not amount to the agony of the former attacks, and he had noticed that the testicles were not drawn up, and while the pain followed the course of the ureter upon the right side, it was bearable, and I did not give hypodermic injection. Urine abundant and clear, tongue furred with bilious coat, slight headache, and temperature 102°. Ordered hot applications for pain, and calomel jalap powder repeated until purgation followed. On my next visit I found him somewhat easier; or-

4. dered some quinine with hyoscinamus for rest. On my visit next morning I found he had preserved his urine for me, and, floating in it, were five or six bodies, which had the appearance of fishing worms, exactly of that appearance. He had felt them pass into the urine, and they had remained in the vessel all night, or until I came. I took them out and washed them with plenty of water under the faucet of the bath-room, placed them in a bottle of water and kept them sometime in my office before submitting them to Professor Reynolds for examination, who reported as follows:

"Prof. John A. Larrabee, M. D. :

SIR—After careful examination, I have decided that the renal deposits you handed me are worms. That they really belong to the Strongle family. I have found two heads practically identical with those figured at page 325 of Volume II, of Eichhorst's Hand-book of Practical Medicine. The worms were torn when I received them, the longest piece measuring five and three quarter inches in length. The lacerated condition of the parasites has made it exceedingly difficult to classify them. It may be they are not of the Strongle species, yet they form a striking resemblance to Leuckart's description, and the almost exact identity of the head with that figured by Eichhorst inclines me to decide that these are really a species of the giant Strongle. That form of Strongle described by Sir Thomas Watson, and many other writers, which is said to attain a half inch in diameter and two to three feet in length, is, to be sure, the true giant, and undoubtedly belongs to another species.

The samples you presented for my examination were beginning to smell of decomposition and I added to the fluid containing them some dilute alcohol. They remained in this two weeks, and afterward two weeks in glycerine before examination. The difficulty involved in the attempt to classify these parasites has been greatly increased by their lacerated condition. The heads, however, to my mind, clear up all doubts on the question. A cylinder five and three quarter inches in length, averaging about one twelfth of an inch in diameter, certainly could not be of the nature of a renal cast, as there are no tubules of sufficient size and length in which such casts might form. In the ureter it would be impossible to form such casts without having both the characteristic ragged ends of a blood cast, and the fresh blood-cell contents. Tube casts of this description readily break down into granular matter under the action of dilute alcohol, whilst the worms have not.

4. A portion of the parasite with head. The whole when straightened out measuring $5\frac{3}{4}$ inches long, exactly the natural size and form.

been visibly affected by it. The glycerine has made no change, the worms still retaining their deep red color.

I submit one of the heads for your own study. Very respectfully,

DUDLEY S. REYNOLDS."

February 25, 1887.

I am sorry that I did not preserve the urine in which they were floating, as it might have shown some eggs. I have seen many bloody casts following pyelitis and kidney calculi, but certainly nothing resembling these. My patient reminded me that after the other attack I had given him five drops of turpentine on sugar several times a day, and, he thought, with advantage, and I again ordered it for him. On my next visit there was some urine tinted with fresh blood, and some small coagula, and fragments, but nothing like the specimen which I have preserved. There never was any strangury in the case, or bloody urine after taking the turpentine, and it was suspended on the second day after commencement. In this attack he passed no calculi, and I ceased to visit him on Sunday, January 23d.

I have no remarks to make, but simply furnish the clinical history. I may be permitted, however, to cite an exactly similar case in Eichhorst, where the same kind of worm was passed with several calculi. Also that this most distinguished authority adds to his commentary these words: "*These worms are sometimes mistaken for blood-clots.*"

TEETH AND HAIR— BRAIN STRAIN.

BY
C. H. HUGHES, M. D.

ST. LOUIS, MO.

[*The Medical Register.*]

The relation of the failure of hair and teeth nutrition to brain strain is becoming justly recognized. It has been recently observed that the teeth of the pupils of the

Paris public schools deteriorate in a few weeks after entry. The second dentition is often premature. Dr. J. L. Williams has

shown that any mental strain shows itself upon the teeth in a short time, both in increased decay as well as in increased sensibility of dentine. Dr. D. M. Parker has reported that these same changes are always apparent in men who are training for athletic trials. And the late discussion of the relationship of baldness to intellectuality and intellectual occupation has resulted in a decision of the question in the affirmative.

Great brain strain, either by worry or work of mind, but especially worry, is undoubtedly a great factor in these results. A great demand for nerve energy, and consequent waste of nerve force, draws upon the general reservoir, and in good cerebral organizations the least essential parts break first. It is thus that strong brains may pass through great trials with only the rapid blanching or falling out of the hair, while weaker ones go to destruction in some of the many forms of neuropathic degeneration and mental aberration.

In great mental stress, such as results in insanity, we often see the nutrition of hair and teeth and skin fail, as well as the failure of the physiological function of other organs before the final catastrophe to the brain.

But the conjoined depressing influences of vices and vicious indulgency, like excessive tobacco, venery, alcoholic stimulation, depressing drug poisoning, especially chlorine and bromide of potassium injudiciously and untimely used, prolonged night work, and violence done to the organism by irregular and inadequate meals and sleep, have more to do with failure of hair and teeth nutrition and brain break-down than brain strain alone. The over brain strain is the determining factor, but it, alone, without other causes, would far less often show in hair and teeth decay if the vicious weaknesses and weakening influences of modern civilized life in the study, the office, or the laboratory, not necessarily connected with mental work, did not combine with the

brain tax to cause nutritional failure in hair and teeth, and elsewhere.

The causes that break the brain are not all in books and study. The hair and teeth fail, like the stomach fails, in intellectual dyspeptics. The brain strain of excessive study is but one of the causes. The brain strain of improper hours of study, and wrong times of eating and sleep, of electric lights, steam-heated bed-rooms, of tobacco-saturated blood, and tobacco smoked-charged sleeping apartments, of telephonic untimely interruptions of rest, the needless noises of city life, and railroad travel, the ceaseless whirl and unrest of so many lives, especially of such as are spent on change, in bucket-shops, and pool-rooms, combined with the physical depressing vices referred to, blanches more locks, decays more teeth, and denudes more heads of hair than study.

The average professional or business man of to-day makes heavy drafts on the vital energy bequeathed him by a more rugged and less restless ancestry, and adds nothing to the hereditarily acquired store of nerve capital bequeathed by organizations which thought they required and accepted the nights, at least, for sleep. The fagot-lights, and tallow-dips, and one-candle-power lights of the obliterated past, saved our fathers, our grandfathers, from over mental strain during a third part of the twenty-four hours of each day at least, and modern diseases of over brain strain, like general paresis, were comparatively unknown to them, and premature bald heads and white hairs and decayed teeth were the exception and not the rule as they are now.

It is modern civilization and its fast ways which have made all the places that are filled to-day by the neurologists, the dentists, and wig-makers, and developed those most important branches of medicine, psychiatry and neurology, though mental aberration has been, in lesser degree than now, common to every age, and so have prematurely gray hairs and decayed teeth. But insanity, like the early decay of the teeth, was never

in past ages so common among the young as now.

The announcement of diseases like general paresis and the affective insanities was received with incredulity, and when they finally became accepted facts in clinical psychiatry, it was only here and there in hospitals for the insane that they were conceded to exist; but now the world outside finds these cases every where as common as the antero-lateral, posterior spinal, and disseminated cerebral sclerosis, of which our ancestors knew nothing. The age at which insanity is possible has moved forward, like the average age, when it is possible for the hair and teeth to fail, which has been advanced by psychiatric clinicians several decades over the mental failure possibilities in this direction of the remoter past. Accordingly we find records by Wigglesworth of paresis occurring at fifteen, by Clauston at sixteen, Morrison at nineteen, Mickle at twenty, Turnbull at twelve, Köhler at six, and other early-age cases by Krafft-Ebing, all recorded by Mickle, who also saw this disease in several soldiers before the age of twenty-five. I have myself known it to occur at twenty-two.

The nerve and brain strain of the present age is different, and more incessantly continuous in the life of individuals than the overtax of the past. The "night" no longer "cometh when no man can work," but brain strain in the ordinary channels of business is possible at all times.

Under such circumstances of continuous over-pressure, with but a limited amount of reconstructive force in the organism, something somewhere must give way. It is fortunate, if the nutrition of the hair and teeth fail, that the normal vitality of the brain may endure. Better an early bald pate, and "*sans teeth, sans eyes, sans every thing*," than that the brain should give out before its time. All honor to the bald heads, where brains beneath continue bright as their glistening pates above. All honor to the hairless crown and prematurely gray and toothless, if study

and the pursuit of knowledge alone have made them so, and not the precocious, vicious indulgences of this rapid age. But more honor to the man who, wisely grown in wisdom's honored ways, still retains a covered crown, and hair and teeth unchanged, until they must in nature part at the "sere and yellow leaf" time of ripe old age.

THE
"PRIZE ESSAY"
AGAIN.
[*Daniel's Med. Journal.*]

It was announced in our last issue that Dr. Briggs (to whom the prize of \$100, offered by the Texas

State Medical Association for the best original paper had been awarded by a majority of the committee) had accepted Dr. Wallace's challenge, to-wit: that the paper be submitted to three recognized psychologists, one to be chosen by each, Dr. Wallace and Dr. Briggs, and one by the President of the Texas State Medical Association, and if they decide the paper to be a prize paper, Dr. Wallace agreed to pay Dr. Briggs \$100 additional out of his own pocket; if not, Dr. Briggs was to return the \$100 to the treasury of the Texas State Medical Association.

In making the announcement we supposed, naturally, that Dr. Briggs understood the very obvious meaning and intention of the offer, and accepted it in good faith. He announced his readiness to accept the wager, and offered to put up \$50 forfeit, and challenged Dr. Wallace to do the same. Now it transpires in a correspondence between the gentlemen that Dr. Briggs takes Dr. Wallace up on a technicality, and claims that the referees selected have nothing to do with the *merits* of the paper, but are to decide simply whether his paper, having been pronounced and published as a Prize Essay, *is* a Prize Essay. Technically, there could be no question on this point, and we have heard it said that—even among sporting men—a mere catch or technicality, or in the vernacular, "*a dead sure thing*" does not win.

BOOKS AND PERIODICALS.

A MANUAL OF OPERATIVE SURGERY.

BY
JOSEPH D. BRYANT,
M. D.

*Professor of Anatomy and
Clinical Surgery, and
Assistant Professor of
Orthopædic Surgery,
Bellevue Hospital
Medical College,
New York.*

With about 800 illustrations.

New York: D. Appleton
& Co. 1887. Cloth, 8vo.
pp. 530.

The long experience of Dr. Bryant as a teacher, and the frequent requests on the part of his pupils, induced him to undertake the work of preparing a text-book on surgery, based upon the general plan of arrangement adopted by him in the presentation of the various subjects in the course

of his lectures to the students at the Bellevue Hospital Medical College.

He begins at once with some general considerations on the subject of the preliminary requirements in all operative procedures. The various anesthetics are then considered *seriatim*, and the modes of administration discussed, together with various precautionary measures, including a description of some simple methods of resuscitation in cases of asphyxia; the method of making incisions for various purposes, with and without directors, followed by some directions concerning the antiseptic precautions during an operation, concludes the first chapter. The second chapter is devoted to the study of the agents for controlling hemorrhage. Following this chapter is one devoted to the treatment of operation wounds. The ligature of arteries forms the subject of the next chapter. The cuts are exceptionally good and, for the most part, original. The chapter on operations on veins and capillaries includes the treatment of hemorrhoids, transfusion of blood, etc. The chapter on operations on the nervous system includes a description of the application of the cylindrical trephine, division of different nerves, nerve stretching, and the suture of nerves.

Says Dr. Bryant: "Nerve transplantation is as yet limited to experimentation.

Sections of nerves can be transplanted, and union can readily take place; but nervous influence is not quickly established. Future experimentation in this line will no doubt secure some great practical advances in the surgery of the nervous system."

As a manual of comprehensive surgery this work is fully abreast of the most recent advances, and the student will no doubt find it an indispensable companion. For the practitioner it is compenduous; and so fully illustrated as to prove of great value for ready reference.

Speaking of cholecystotomy, Dr. Bryant says, forty cases have been reported, of which ten were fatal. Cholecystectomy has been practiced six times, with a death rate of fifty per cent. Some detailed description under these two headings would prove of great interest to the reader, and could not fail to enhance the value of this excellent manual. Fifty per cent mortality from enterectomy is, as Dr. Bryant says, very satisfactory, when it is considered that over ninety per cent of penetrating wounds of the abdomen die when treated expectantly; and we are to understand that shot wounds and malignant disease constitute the chief causes for the practice of enterectomy. Nephrotomy, Dr. Bryant says, has been practiced for various causes in all one hundred and twenty-five times, with a mortality of twenty per cent. The death rate after operations for calculous pyelitis is about forty three per cent; and for other causes, eighteen per cent. Nephrectomy has been reported six times without fatal result. In this number of *PROGRESS* the reader may find some valuable hints in the discussion of this subject in the French Congress of Surgeons (see page 451).

In describing the various specula used in exploring the rectum, we are surprised to find no reference to the very superior instrument invented by Dr. George Cooke, of Indianapolis, an account of which was published in the *Indiana Medical Journal* and in the *Medical Herald*. The suggestion that

for the removal of large nasal polypi preliminary tracheotomy should be performed in consequence of the liability to prolonged hemorrhage, is certainly out of all proportion to the advanced character of other portions of this work, and betrays an unfortunate lack of familiarity with nasal surgery. Dr. Bryant omitted any consideration of the operations peculiar to the female sex, and the eye and ear, because, in his opinion, they are entitled to a more extended consideration than the scope of his work would admit. The affections of the nose and throat should have been included in this list of omissions. It is, as every experienced specialist knows, far more rational to treat very large polypi by injection than to undertake any extensive mutilation, such as opening the cheek, to get to the posterior nares, and the performance of tracheotomy as a precautionary measure where hemorrhage is expected. In fact, Dr. Bryant makes no mention of the removal of nasal polypi by injection of caustic and astringent fluids. In the transactions of the American Medical Association for 1881 may be found a paper on the radical cure of nasal polypi by injection, which we earnestly commend to the attention of Dr. Bryant.

Most of the errors in this manual are errors of omission, and they are exceedingly few and far between. The typographical execution is admirable, and the cuts are so well done as to make the eight hundred illustrations, in many respects, the most attractive feature of this carefully prepared, not to say magnificent, manual.

TEXAS QUACKERY.

BY

A. W. ACHESON, M. D.

DENISON, TEXAS.

The committee on this important subject has issued its report in pamphlet form, with illustrations. It appears in unique and attractive style. The first cover page is adorned with a quack, apparently of the mallard variety. Dr. Acheson is something of a humorist, and his report should have been included in the

volume of transactions, even to the exclusion of the prize essay.

THE MEDICAL REGISTER.

A weekly journal of medicine and surgery. By JOHN V. SHOEMAKER, A. M., M. D., AND WM. C. WILE, M. D. Medical Register Co., 1519 Walnut Street, Philadelphia, Publisher. Subscription, \$3.00 a year.

In form and appearance this sprightly new weekly resembles the *Medical News*. The extensive experience, and masterly ability of the editors, insures, of course, both the literary and financial success of the *Register*. Twenty years ago the

experiment of establishing a weekly medical journal, in New York, was extensively commented upon. The only weekly of any importance at that time being the *Medical and Surgical Reporter*. Now there are scores of them, and withal an actual demand for the *Register*.

HOW TO USE THE MICROTOME

Of the Bausch & Lomb Optical Co., and a Method of Demonstrating the *Bacillus Tuberculosis*. BY JAS. E. REEVES, M. D. WHEELING, W. VA. Rochester: B. & L. Optical Co. 1886.

This little book, although apparently in the nature of an advertising pamphlet, contains in fact much that is practically valuable for the student in the laboratory. The extraordinarily thin and beautiful sections for which Dr.

Reeves has become famous, are made with the B. & L. Microtome, from tissues previously hardened by the interstitial method, and stained on the slide. Dr. Reeves proposes a new method of staining with Gibbes' double stain, by adding a solution of aniline oil. It is astonishing that any one should fail in the use of Gibbes' instantaneous method of staining the tuberculous sputum. It is much simpler than the method of Reeves, and takes but twenty minutes to complete the whole process of staining and mounting. It is of the utmost importance to have a ready and quick method of staining the sputum.

CORRESPONDENCE AND SOCIETIES.

PHILADELPHIA LETTER.

By our Regular Correspondent, W. H. MORRISON, M.D. Rabies—Effect of Heat on Micro-Organisms—Death from Chloroform—Dr. Rush.

An interesting and valuable contribution to the much-discussed question of preventive inoculations against rabies was given a few weeks ago in a paper entitled "An Ex-

perimental Research upon Rabies," which was read by Dr. Harold C. Ernst, of Boston, before the Academy of Surgery of this city. When Dr. Ernst began his work he was rather skeptical as to the correctness of Pasteur's views, but the results of his investigations compelled him to adopt conclusions very similar to those of the French observer. The experiments were performed in the Pathological Laboratory of Harvard University, the animals employed being rabbits, guinea-pigs, and dogs. The virus with which the inoculations were made was obtained from a rabbit which had been inoculated in Pasteur's laboratory. A detailed account of the experiments, with the result in each individual case, was given. The conclusions drawn from these experiments were as follows: That there exists in the spinal cords and brains of animals inoculated in Pasteur's laboratory a specific virus capable of producing similar symptoms through a long series of animals; that these symptoms are produced with absolute certainty when the method of inoculation is by trephining the skull and the injection under the duramater, with less certainty when the inoculation is by subcutaneous injection; that the strength of this virus is lessened when the cord containing it is removed from the animal and placed in a dry atmosphere at an even temperature; that the symptoms produced by the inoculation of this virus only appear after a certain period of incubation, distinctly shorter when the inoculation has been by trephining than when it has been by subcutaneous injection; that the injections of the virus modified in strength by

drying in the manner described by Pasteur, exert a very marked protective influence against an inoculation with virus of full strength; that a very moderate degree of heat destroys the power of the virus entirely, while prolonged freezing does not injure it. Results of this kind based upon careful, pains-taking experiment are worth infinitely more than the vast amount of theoretical discussion to which the statements of Pasteur have given rise.

At a recent meeting of the College of Physicians, Dr. George M. Sternberg gave the results of investigations which he had been conducting for a number of years to determine the thermal death-point of pathogenic organisms. The methods employed were described and the apparatus used was exhibited. The plan at present employed is to submit the organism under examination to a certain definite temperature for a given time. The effect of this exposure upon its power to develop when placed under appropriate conditions is then noted. The thermal death-point thus ascertained was given for a large number of micro-organisms. Among the more important it is to be noted that the typhoid fever bacillus requires an exposure of ten minutes duration to a temperature of 132.8° F.; the coma bacillus of Koch, a temperature of 125.6° maintained for four minutes; the bacillus of glanders, exposure for ten minutes to a temperature of 131° ; the staphylococcus pyogenes aureus, 136.4° ; the staphylococcus pyogenes citreus and albus, 143.6° ; the streptococcus of erysipelas, 129.2° ; the micrococcus of Pasteur, 140° . These observations seem to show that a degree of heat readily attainable is sufficient to destroy the virulence of the pathogenic organisms of some of our more common diseases.

Another instance of the extreme danger attending the anesthetic use of chloroform, even in the most skilled hands, was given by the death of a patient under the care of Prof. Pancoast at the Medico-Chirurgical Hospital. The case was one in which it

was necessary to break up adhesions in the fingers, the result of an injury received some weeks previously. The patient complaining much of the pain, was given a few whiffs of chloroform, when suddenly extreme pallor of the face and other alarming symptoms presented themselves, and in spite of all that was done the patient died. The autopsy revealed marked fatty degeneration of the heart with interstitial nephritis and cirrhosis of the liver.

There has recently been presented to the College of Physicians an interesting souvenir, being a well-preserved letter written by Dr. Benjamin Rush to the attending physician of Mary, the mother of Washington, by whom he had been consulted with reference to the disease (carcinoma) from which she was suffering. In this letter Dr. Rush clearly states his belief that in cancer nothing is to be expected from internal medication. This letter was presented to the college by Dr. Hunter McGuire, of Richmond, Va. It will be framed and placed in the valuable historical collection of the college.

A BREACH OF PROFESSIONAL ETIQUETTE.

LOUISVILLE, KY.,
February 28, 1887.
Editor of PROGRESS:
DEAR SIR:—Permit

me to send you for PROGRESS a brief report of a case which, while it is not anomalous is certainly interesting, not only from its rarity in the human family, but also on account of the discussion it has caused in medical circles. I desire to state that I made a verbal report of this case, and exhibited the specimens before one of our leading medical societies. I reported the case as one of kidney worm, of the strongylus gigas family, stating that a competent pathologist had so pronounced it. A member of the society, also a microscopist, stated that he had recently had submitted to him, for examination, some fragmentary specimens, which he thought were from the same patient, but they were much inferior in size and appearance to those which I had present-

ed. He doubted that they were worms, although they looked very much like them. In the specimens which he had examined he had found crystals of hematine, and was inclined to think they were blood casts.

At the request of several members of the society, I permitted the doubting member to select any one of my specimens for further careful examination, with the understanding that when the society should meet again he would submit his report. In a few days, however, to my astonishment, my attention was called to an account of the case in the Louisville *Courier-Journal*, quoting the society's proceedings. As this society in publishing this report to the public without my knowledge or consent does me some injustice, and, moreover, as I do not seek newspaper notoriety, I send the history of the case to you for the medical profession, where I think it belongs.

I am very respectfully and truly yours,

J. A. LARRABEE, M. D.

SECOND CONGRESS
OF FRENCH
SURGEONS.

BY

MARCEL BAUDOUIN.

Translated from *Le Progres Medical*, for PROGRESS, By

MRS. SALLIE E. MORRIS,
of Covington, Ky.

(CONTINUED.)

M. RICHELOT, of Paris, treats of manual operations and of indications of vaginal hysterectomy. Vaginal hysterectomy comprehends three periods: 1st, isolation of the uterus; 2d, treatment of the large ligaments; 3d, treatment of the disease. The

great danger of this operation consists in a bad ligature made with the large ligaments. The only way to make sure of a rapid hemostasis is by the use of long pincers, and continuing the pressure on these ligaments, and permitting them to remain in the pelvic cavity twenty-four to forty-eight hours. This proceeding simplifies the operation and abridges it in the intra-peritoneal maneuvers and assures definite stagnation of the blood. This is a proceeding he employs

systematically from choice. Suture and drainage vanish before the pincers.

Vaginal *hysterectomy* is indicated in all cases of special uterine cancers. This is the only tenable operation; partial amputations, sub-vaginal and supra-vaginal, being insufficient and not preventing a return of the difficulty. It is also indicated in non-cancerous affections of the uterus. Certain grave retroflexions of fibromas, small in size, have menacing symptoms, for the large fibromas can not pass entire into the pelvic opening, and it is necessary at first to divide them. This operation can also be performed for obstinate prolapsus uteri. Thus understood, vaginal hysterectomy is worth more than abdominal hysterectomy, and is an operation of the future.

M. DUPLOUY, of Rochefort, cites an observation of M. de Baudet, his compatriot, having for a title *Hystirectomie Vaginale*, by the Richelot process. Without employing the methods of this surgeon, said he, it would be impossible to properly treat disease of the uterus. At the same time he is not as absolute as M. Richelot, and formulates his conclusions thus: In simple cases he prefers the ordinary ligature of large ligaments. In complex cases he uses the pincers, to employ which at that time is indispensable to success. But it is not necessary to prolong the application of these pincers more than thirty-six hours, under pain of having small eschare, and this time is sufficient to assure stagnation of the blood.

M. PEAN, of Paris, proposed for this discussion the claim of the priority of the use of pincers preventive of vessels, a method on which he believes that he has the honor of having invented—the pincers employed in this operation. So far as the mode of operating is concerned he is of the opinion of M. Duplouty. He finds M. Richelot too extreme.

M. J. Boeckel, of Strasbourg, has recently done vaginal hysterectomy in a case of obstinate prolapsus uteri. He cites this case in order to show that in all like cases this

operation is clearly indicated, and should not be forgotten.

M. TÉDENAT, of Montpellier, is of the opinion that it is necessary to make some reservations as to the value of vaginal hysterectomy.

M. DEMONS, of Bordeaux, defends the opinions of M. Richelot.

M. L. DENTU, of Paris, operated recently upon eight patients afflicted with varicocele, and tried in these cases the radical cure. He especially used the praised operation of M. Horteloup. He gives the result of the investigations made by the critics, who saw the operation. 1st. Occasionally the anterior cluster of veins is more developed than the classical operation of Horteloup is defective. 2d. It may be difficult to maintain a hold upon the posterior veins. 3d. The superficial suture leaves some times some thing to be desired. The deep parts compressed tend to make a hernia across the cutaneous section and it is difficult to make a superficial suture well. M. Le Dentu reviewed three of his operations after about seven months. In one, complete suppression of pains and atrophy of the veins resulted well, but was obliged to wear a suspensory bandage. In the last there remained some dilated veins. According to him the simple method sufficed, in simple varicocele with undeveloped veins, but the combined method (those of M. Guyon and M. Segond for example) ought to be employed in grave cases. *Apropos* of this he indicates the means of replacing the ordinary claws used by two ordinary large curved pincers.

M. HORTELOUP, of Paris, said that in order always to obtain good results it is necessary to divide the posterior veins, whether they be diseased or not.

M. LANNELONGUE read a paper upon sanguineous extra-cranial tumors. There are, according to this author, upon the arch of the skull two distinct varieties of sanguineous tumors communicating with the superior longitudinal sinuses of the duramater. Some are of traumatic origin, follow-

ing the openings of the superior longitudinal sinus in the neighboring veins. These tumors, where there is a true circulation, are aneurismal veins. The others are properly called *angiomas*. They are congenital, and more frequent than the former. They appear upon the territory of the emissary veins. This explains their communication with the sinus by veins situated in a sort of neck. In traumatic hematoma, there is no interference. Direct compression, while it has never been employed, appears to be a method to be tried in communicating angiomas. If it has a tendency to increase, it is necessary to extirpate it antiseptically, binding its neck with care. M. Lannelongue has recently observed a case of communicating angioma, and it is *apropos* of this case when elsewhere the diagnoses made were those of simple angioma that it has often renewed the old and perplexed question. The error of diagnosis has nearly always been made in the observation of analagous cases heretofore made public.

M. GROSS, of Nancy, presented some considerations upon supra-pubic cystotomy in young subjects. This operation is practicable upon children. It is facilitated at this age by two conditions, the form and position of the abdominal bladder, the raised position of the peritoneal cul-de-sac. One should try by a total vesical suture to obtain a reunion by the first intention of the vesical walls, but it is not necessary to suture partially the abdominal walls. In the place of employing an ordinary probe, which young patients can not so well endure, it is necessary to have recourse to the catheter every three hours.

M. PONCET, of Lyons, recounted the case of a patient in whom he had employed with success the drainage of the bladder proposed by M. Demons. He believed it good to recommend this new operation to the attention of his confreres.

M. CHEMEUX, of Limoges, spoke of drainage and primitive reunion. Drainage is a preventive of the primitive reunion of

wounds, and often injured it. One excludes the other. It is surgical nonsense. All wounds, if they are antiseptically treated, ought to unite by the first intention. He omitted drainage even in such operations, as thyroidectomy, the ablation of large tumors, and when there are lost ligatures. In these cases he has no suppuration if the wound is well treated antiseptically.

M. MOLLIÈRE approved these conclusions, but insisted upon the necessity of the absolute asepsis of the wound. He has not used drainage for some time.

M. PLUM, of Copenhagen, reported a number of cases which sustained these ideas. He indicated the means of applying directly the preserved skin upon the walls of the great cavities, speaking of the manner of suppressing, so to speak, this cavity, without having to use drainage. He insisted also upon the absolute necessity of a perfect antiseptics.

M. PONCET, of Lyons, is a convinced partisan of drainage.

M. CHAUMIER, du Grand Pressigny, read a memoir upon pseudo scrofula, from a surgical point of view.

M. L. DENTU read a résumé of a remarkable memoir which he published recently in the *Surgical Review*, upon nephrectomy and nephrotomy. He then showed what are the indications and the contra-indications of these operations. Apropos to them, he mentioned to the convention some particularities which had struck him.

For example: the necessity of operating at the proper time for abscess of the kidneys. He thinks they wait too long before making an incision. It is true that in order to operate it is necessary to be certain of the diagnosis. Also, he believed it well to recommend the practice of Simon of Heidelberg, who, in order to discover the fluctuation suspected in the region of the kidneys, did not hesitate to administer chloroform to the patient. He has been reproached for not having in his work given a certain place

to experimentation. If he has not spoken more of it, it is because the experimenting upon a dead body teaches little in regard to a similar question concerning a normal subject. Then ordinarily where one practices these operations he has a large enough business with these tumors. He recommends curved and combined incisions, without in the mean time encouraging the surgeon to make large incisions. In operating thus, in effect, they can not make the muscular suture one has following the operation of cutting open. The method of dividing great tumors, previously extolled by Pean, is serviceable in certain cases. After having analyzed a work of Holl upon the relation of the ribs to the kidney, and shown that it is also necessary, if possible, not to cut above the twelfth rib for fear of wounding the pleura (which is not otherwise very inconvenient ordinarily), he concludes by presenting a special needle which permits him to easily make a ligature of the vessels in a deep wound, resulting from ablation of the kidneys. For him nephrectomy has a greater feature than nephrotomy, because it gives more definite success. Nephroraphy is, perhaps, preferable to nephrectomy in all cases of floating kidneys.

M. LUCAS CHAMPONNIÈRE, of Paris, has performed one nephrotomy and three nephrectomies, resulting in one cure and two deaths. He reports in detail these observations. In one where he had absolute *anuria* during thirteen days, he has ascertained that this anuria was not due to a reflex action upon the healthy kidney, but to an absence of this kidney, when the ureter of the diseased side was completely obliterated. For this surgeon nephrotomy is simpler than nephrectomy. It is by this that one ought to commence to treat suppurating nephritis, especially if the patient is enfeebled. The extra peritoneal operation is always less dangerous.

For a diagnostic summary of injuries demanding such surgical intervention, he admits that much information can not be

obtained by feeling the renal region, and the use of the urethral catheter is an illusion. If any one has doubts he had better open the abdomen squarely in order to know what he has to do. The shock of the operation is grave in nephrectomy, but in nephrotomy it is not a very painful operation. He has also invented a special needle in order to make ligatures in these operations.

M. BOUILLY, of Paris, relates four observations of nephrotomy and nephrectomy, which he has made :

First case—ancient renal suppuration, nephrotomy. Apropos of this observation he insists upon a symptom of renal abscess little known, an obstinate cystalgia without vesical injuries, purely symptomatic of injury of the kidneys, and upon the necessity of making a large renal incision to open all the purulent pouches contained in the organ. Often in effect, renal operations are polycystic, and the pouches without communication one with the other.

Second case—renal suppuration and phlegmonous perinephritis. Nephrotomy was used. In these two cases we localized intervention, one partial operation has given good results.

Third and fourth cases—for two painful floating kidneys, two nephrectomies, with cure.

M. DEMONS, of Bordeaux, relates two observations, the one of nephrectomy, for abscess of kidneys, the other for sarcomatous tumor of the kidneys.

M. MALHERBE, of Nantes. This surgeon has performed nephrectomy for an abscess of the kidneys, and has experienced very great difficulty in the extirpation of the diseased organ.

M. SCHWARTZ, of Paris, cites his observation of a young woman of eighteen years, presenting symptoms of vesical cystalgia, of repeated hematuria, and afterwards slight pain in the lumbar regions, and some pus in the urine. An exploration, under the influence of chloroform, disclosed a very distinct tumor, deeply located. A puncture,

made in exploring, gave a purulent liquid, without bacilli. Nephrectomy transperitoneal was performed.

M. Schwartz insisted upon cystalgia, and on the other hand believed it better in this case to pass through the peritoneum than to pass by a circuitous way.

M. RELIQUET spoke of three patients—one affected with cancer of the kidneys, the other two with abscess of the kidneys. All three had uncontrollable vomiting, violent renal pains, and frequent desire to urinate, with pain. With all the urine was diminished in quantity. The patients affected with abscess passed from 300 to 400 grammes of urine, of which half was pus. The cancerous patient passed 60 grammes of urine in twenty-four hours. Upon these three patients, as soon as nephrectomy was performed, all the symptoms, vomiting, pains, frequent desire to urinate, pain in urinating ceased, and in the twenty-four hours which followed the urine was in normal quantity.

These facts led M. RELIQUET to propose nephrectomy in case of renal calculus, when, by its duration, endangered life.

M. DOYEN, of Reims.—I. Observation, Uretero-cutaneous fistula following an injury of the left ureter during the ablation of a cyst of a broad ligament. The ureter is fastened by hair of Florence in a narrow incision in the abdominal wall, the extremity extends beyond the skin and is tied to an india-rubber tube, resisting itself, fixed by a hair of Florence, and which directly conducts the urine, without wetting the dressing, into a bottle filled with boraccic solution—350 c. c. of urine in the urethra after the operation. At the end of three weeks 500 c. c. The fifth week the ureteral fistula closed spontaneously. Acute hydronephrosis nephrectomy d'urgence by the lumbar way. Only one vertical incision and section of attachments from the lumbar region to the iliac crest. The extirpated kidney measured twenty centimes in length. Histological examination, dilatation of the cap-

sule of Bowman, atrophy of glomerules, dilatation of the tubuli, flattening of the epithelium, absence of embryonic infiltration of conjunctive spaces, œdema of these same spaces.

2. Observation — *Pyélo-néphritis, calculous*, hectic fever, nephrectomy, ablation of the kidneys, polycystic suppuration, extending to the ninth rib, in the rear to the spine anterior, superior iliac. Death. His case is interesting on account of the enormous volume of the tumor extirpated and the difficulty of its decortication. Nephrotomy had been completely inefficacious by reason of the impossibility of emptying all the purulent pouches, and of the great inconvenience of leaving at the bottom of the wound parts of necrosed tissue from a prolonged suppuration.

Cultures of urine in fermentation in the case of pyelo-nephritis, and in divers cases of cystitis, has demonstrated that the fermentation of urine is very complex. The microbes of suppuration by themselves, much more diverse bacilli are able to provoke it. In order that a diagnostic differential sign of purulent cystitis and suppurating hydronephrosis, it is easy to make in practice a perfect washing of the cyst with the probe of Bigelow, or the probe aspiratrice of Guyon. When the borated water is very clear one waits four or five seconds. They feel very methodically the renal regions, then they probe anent. If one has simple cystitis the probe introduced anent gives no issue but clear urine; if not, the purulent liquid coming directly into the pan flows away. A proof of the suppuration of the superior urinary passages may be had.

M. OLLIER explains that which he understands as *nephrectomy under the capsule*. This nephrectomy consists in the ablation of the kidneys made of such kind that they leave in place its fibrous capsule; the separation of the renal pulp of this opposing capsule is easily made with the hand without instruments. It is preferable and easier, in some cases at least, to the operation which

consists in extracting the kidneys from the midst of their adipose capsule because there are often adhesions very intense and insurmountable between the fibrous and adipose capsules. He recognized it as true that this is not applicable to all cases, especially if the kidneys are not sound, and in this case it is simpler to enucleate in the adipose capsule. It has the advantage of diminishing the chances of hemorrhage, and the fibrous capsule which remains in place is a strong barrier, very useful from most points of view.

In that which concerns the incisions in nephrectomy, they should be made long, and it is necessary to have a day set apart. The muscular suture of which M. Le Dentu speaks is possible, and succeeds very well. He closed by reciting many reflex phenomena which he had observed following close after this operation. He explained them by the ligature of the neck of the kidneys, basing himself upon physiological experiences (ligature of the renal plexus). These phenomena consist of abrupt changes coming into the blood circulation, and placed under the influence of the vasomotor nerves. At the end of thirteen days after the operation he saw a sialorrhœa so abundant that the patient ejected $1\frac{1}{2}$ litres of saliva in one hour.

M. JEANEL, of Toulouse, cited an observation of nephrectomy, followed by death, where the renal tumor was only recognized in a course of laparotomy, instituted for an intestinal obstruction. The intestine was compressed by the tumor. The cases of intestinal obstruction in which there is a compression of the intestine are rare. These are especially mesenteric tumors that cause these symptoms. It is curious to note that the tumor in the observation in question presented an intra-mesenteric prolongation.

(TO BE CONTINUED.)

The meeting of the Mississippi Valley Medical Association, at Crab Orchard, in July, will be largely attended by the best workers in the profession

PROGRESS

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DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

D. W. RAYMOND, BUSINESS MANAGER.

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PROGRESS will be found on file at the American Exchange, 449 Strand, London; 35 Boulevard des Capucines, Paris; and at Berlin, Prussia.

VON FRISCH

AND PETER vs.

M. PASTEUR.

The suggestion by Prof. Von Frisch, of Vienna, that Pasteur's inoculations for the prevention of rabies may even generate the disease for the prevention of which the operation was done, is a fatal argument to all the opponents of M. Pasteur's methods. The opposition all along have claimed that Pasteur had not discovered the microbe of rabies.

The latest, and, perhaps, the most powerful opponent, Von Frisch, has an advocate in the person of Prof. Peter, who reports the case of a man, aged twenty, who was bitten about the beginning of November, 1886, by a dog recognized by a Veterinary surgeon as being mad. The patient went to Pasteur's laboratory, where the inoculations, according to the intensive method, were performed, in the hypochondriac region. Three inoculations were practiced daily for ten consecutive days, the first one on November 3d. The patient remained in good health to December 12th,* when he, for the first time, experienced pain at the point where the inoculations had been practiced. He experienced no pain from the cicatrix of the bite in the finger. He grew rapidly weak, refusing to eat, and died four days afterward, without having had any convulsions. M. Miguel, who was sent for, arrived in time to find the patient dead, with frothing

at the mouth. Says M. Peter: "Premonitory pains set in, not from the bitten finger, but from the point of inoculation. The symptoms were not those of ordinary hydrophobia—the predominant symptom was not convulsive, but paralytic." At the meeting of the Paris Academy of Medicine, when this report was made, Dujardin-Beaumetz directed attention to the inconsistency of Prof. Peters' observation, and demanded to know upon what ground the diagnosis of rabies had been made in the case of the man just dead; as none of the symptoms indicated the presence of rabies, it was fair to infer the patient had died of some other disease; but, even if it were shown that he died of rabies, it would have exhibited no important element of testimony, as no one had ever claimed that Pasteur's method was infallible. M. Verneuil wished to know why the dog was killed before it was determined to be rabid? So the profession in Europe are just as ready to jump at conclusions without evidence as men are in this country. Pasteur's work must stand upon its own results, and not upon the prejudices of his admirers; neither can it fall by the weight of any amount of prejudiced opposition.

THE A. M. A.

OUR DUTY

TO THE

PROFESSION.

Prof. Xen. C. Scott, of Cleveland, is chairman of the section of Ophthalmology and Otology in the American Medical Association. The next meeting will be held at Chicago the 7th, 8th, 9th, and 10th of June. A very large attendance and a full programme will add greatly to the importance of the meeting.

In the East the most active workers in the societies are those who are busiest in practice. In the West this rule has not been observed. It is no excuse for absence from the society meetings to be oppressed with the exacting demands of a large practice. The public should understand that the best minds in the profession give most assiduous attention to its interests, and do

most to foster and encourage organized effort.

It is fair to assume that those practitioners who are too busy or too timid and refined to take part in medical society meetings are really intellectually deficient, or they have not the moral courage to support the dignity of an active membership in the profession.

HE IS

A BEAR

AS WELL AS

A BRIGGS.

DALLAS TEXAS

March 2th 1887

Dr Dudley. S. Reynolds

(Private.) Louisville Ky

DEAR SIR: You

seem to be hot because I gave you a "*clip below the belt*" in Feb No of C—R of Medicine. See Daniels Texas Medical Journal for Feb—I give Wallace a punch in the short ribs! Keep up your dancing to Dr FE Daniels piping. I shall always "*see you*" and "*go you one better*"! Before you are done with me, you may want some one to help you let the bear go. You have not yet pointed out any thing in the 84 pages of essay so ridiculous as are found in *every* issue of *Progress*? Progress? Over the left you mean! Keep it up you are on the right track.

Hastily

J. R. BRIGGS M D

OUR CONFIDENTIAL REPLY.

There is an old story that runs somewhat this way: When the Republic of Texas was admitted as a State into the Union, a great many Eastern people went out prospecting for good openings to invest their capital. At a little frontier town one of these rich Yankees, desiring information as to soil, water supply, etc., accosted a Rustic, who sat in his saddle picking his teeth with a fifteen-inch Bowie. Not pleased with the inquisitive stranger's manner, the Rustic said, "See here, stranger, you better take care! I'm a Bear, and it's my day to growl; you better take care, stranger! I'm from Bitter Creek; people

are mighty bad up there; the further up you go the worse they get, and I'm from the headwaters. Take care! stranger, take care!" As time rolled on and the advancing civilization altered the customs of the people of Bitter Creek, they gradually turned into intellectual pursuits, and now, the only remaining Bear from that once dreaded region has become a Prize Essayist.

The above communication clearly indicates that its author thinks he has captured the editor of PROGRESS, who, never having met the "bear," naturally declines any thing like a "private" correspondence with so dangerous a beast. It is now reasonably certain the prize essay was never written at all, but whittled out with a Bowie knife.

PUBLIC HEALTH CONFERENCE.

To meet at Louisville May
24 and 25.

There is to be held at Liederkrantz Hall in this city on the 24th and 25th of May, prox., a Public Health

Conference under the auspices of the State Board of Health. The purposes of this conference are the better education of the public in matters of general and special hygiene, the organizing of a Health League for the support and encouragement of the work of the Municipal and State Boards of Health, and to secure better legislation for the promotion of the public health.

The officers of the Conference named by the Committee of Arrangements are:

JAMES P. BOYCE, D. D., LL. D., *President*.

MR. WALTER N. HALDEMAN,

MAJOR J. M. WRIGHT,

MR. WM. H. DILLINGHAM,

MR. JOUETT MENEFEE,

COLONEL BENNETT H. YOUNG,

MR. J. M. ROBINSON,

MR. DANIEL E. O'SULLIVAN,

MR. JAMES G. CARTER,

MR. THEODORE HARRIS,

DR. R. C. HEWITT, *Vice-Presidents*.

DR. JOSEPH N. MCCORMACK, *Secretary*.

The programme embraces the names of about twenty essayists. The subjects are

various, and cover about all the available ground upon which the conference is based.

There will be a large attendance at the meeting, and great results are expected. We hope to exhibit to our readers at an early day substantial evidence of the realization of the objects of the conference.

THE LEG OCULIST
OF TEXAS.

In the report on surgery, to the Texas State Medical Society, by Dr. George Cupples, Chairman of the Committee, two very conspicuous facts appear: 1. None of the operations involving the eye were done by Ophthalmic Surgeon Briggs. 2. The name of the prize essayist, who advertises his "practice limited to the Eye, Ear, Throat, and Nose," appears as the operator in two cases of "amputations and disarticulations." The first was that of a white male, with "gangrene, fracture into knee joint," Ether was administered, carbolic acid used, and the remarks say, "good recovery." The second was a colored male, with "gangrene, compound C. fracture of tibia." Treatment same as first case. Remarks, "rapid recovery." By the magical touch of the Briggs, aided with a little carbolic acid, traumatic gangrene is stripped of all its malignancy, at Fort Worth, or Dallas. Which?

GET YOUR PAPERS
READY FOR THE
CONGRESS.

Prof. Julian J. Chisolm, of Baltimore, President of the Section of Ophthalmology in the approaching International Congress, would be pleased to have the South and the West fully represented in the authorship of papers to be read. May has been fixed as the limit for announcing papers by title, and it is probable no voluntary papers will be admitted.

The editor of PROGRESS has accepted an invitation to address the alumni of the Medico-Chirurgical College, at Philadelphia, on the evening of April 7th, on the growth of medical education and some of its results.


PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

OF INTEREST TO OUR READERS.

It is the fashion now-a-days to offer premiums; it ought not to be so, and yet one must follow the fashion.

Both students and doctors are ready enough with their own names as subscribers to PROGRESS, and we have a constituency to be proud of, and yet we are not satisfied, and beg to say *to you*, that for a canvass among your friends, resulting in the sending to us of ten new subscribers at regular rates, \$2 per annum, for each name, we will forward our regards, carriage paid, in the shape of a copy of the PERSONAL MEMOIRS OF U. S. GRANT, 2 vols., nearly 1,300 pages, bound in cloth, the original work sold (only by subscription) at \$7, and published by Charles L. Webster & Co., New York, 1886.

 *This work has never been on sale, and is not purchasable at book-stores.*

PROMPT RESULTS.—I have been using PEACOCK'S BROMIDES considerably during the past year in my practice. In the treatment of various nervous affections, I have attained better satisfaction and more prompt results with it than heretofore with the simple solutions of the bromide salts. When ever a sedative is required, and to meet the conditions arising during the treatment of different diseases forbidding the use of opiates, I do not hesitate to recommend PEACOCK'S BROMIDES.
EDW. L. TONS, A. M., M. D.
376 W. Randolph St., Chicago, Ill.

A copy of the PERSONAL MEMOIRS OF U. S. GRANT, free of cost. Read our notice OF INTEREST TO OUR READERS.

"SUBSTITUTION is not simply dishonest; it is felonious, and displays the same reckless disregard for life that marks the burglar or highwayman who is prepared to take a life if it stands in the way of his plunder. The man who does it does not simply filch a few cents from the pocket of his customer (frequently poor and needy), nor does he merely jeopardize the reputation of a physician, but he puts in peril the life of a customer who trusts him. The honest members of an honorable profession, and fortunately they are largely in the majority—the reputable pharmacists—owe it to themselves to expose these vultures and drive them from the trade. In doing so they should have the aid and countenance of every physician. In the meantime, let every physician not content himself with shunning the shops of those whom he detects in the nefarious habit of substitution, but boldly denounce them, and warn his patients against carrying prescriptions to them. Concerted action of this sort will soon purge the trade of the offending members."

The above extract from an editorial in the *St. Louis Medical and Surgical Journal* tells the simple truth. The advertising pages of PROGRESS contain announcements of many large manufacturing houses whose money has been spent freely and in legitimate channels to acquaint physicians with the merits of articles about which there is no mystery and in which are combined the proper ingredients at an expenditure of care and cost, at least deserving of appreciation, and physicians owe it to themselves, their reputations, and a proper regard for the welfare of their patients to set the seal of emphatic condemnation upon these poisoning fiends.

COPY of a letter sent to Chas. L. Davis, Newburyport, Mass., by Jas. Lewis Howe, Ph. D., Scientist Polytechnic Society, Louisville, and Professor of Medical Chemistry and Toxicology, Hospital College of Medicine:

LOUISVILLE, KY., March 14, 1887.

MY DEAR SIR—At your request, I have had a sample drawn from the barrel of McKenna Nelson County Whisky, of spring of

Vol. 1, No. 9—33.

1881, purchased by you from H. McKenna, of this city, and submitted the same to a careful examination. I find it to be a pure whisky, absolutely free from any trace of fusil oil or any other deleterious ingredient. I can confidently recommend it to the physicians of Newburyport for use in their practice. Yours, etc., JAMES LEWIS HOWE.

CHICAGO, ILL., June 15, 1886.

Messrs. Arthur Peter & Co.:

DEAR SIRS—Your "Syrupus Roborans" is an excellent tonic, and assimilates nutrition very rapidly. Being a perfect solution of the Hypophosphites and Strychnia, must necessarily commend it to the medical profession as equal, if not superior, to any compound of the kind in the drug market. I have tried it in some cases of Phthisis Pulmonalis and Chronic Anemia with the most gratifying results. As a reconstructing agent it must become a prominent staple preparation and a boon to all who are emaciated and enfeebled from the effect of chronic diseases of the blood and nervous system. Thanking you for samples, I am, very respectfully, T. J. REID.

MESSRS. WURACH & SCHOLTZ have the largest and most comprehensive stock of "good goods" in Louisville. They handle nothing adulterated, and sell nothing they can not conscientiously recommend. It pays in the long run, both physically and morally, to deal with such a house.

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PHILADELPHIA, PA.

DENTAL DEPARTMENT.

CONDUCTED BY A. WILKES SMITH, M. D., D. D. S.

CAPPING

EXPOSED PULPS.

In performing this delicate operation many practitioners apply oxyphosphate or oxychloride of zinc as a capping. This is fraught with many dangers well known to the dental specialist. Some claim that oxychloride of zinc, from its stimulating properties, will induce hyperactivity in the nutritive currents, thereby producing an excess of the pabulum which nourishes and organizes dentrine, but if used indiscriminately may result in congestion or death of the pulp. Phosphate of zinc is considered better by some, as it possesses less caustic properties, is more ductile, and possesses better edge strength. The objections to these materials may be removed by first placing a disc formed of gutta-percha, fitting loosely over the exposed pulp, filling the disc with oxide of zinc, formed into a paste by the addition of oil of cloves. Then place a small piece of asbestos felt over the disc preparatory to introducing the plastic material. In case of an extremely sensitive condition of the tubuli of the tooth a thorough "*whitewashing*" of cavity is recommended—*i. e.*, procure a small quantity of lime, mix with a thin solution of sandiac varnish, and apply to the walls of the cavity. This procures a thorough antiseptic lining to the walls of the cavity, and protects the tooth against thermal changes that play such sad havoc with the imprisoned pulp in cases of congestion.

DENTIFRICES.

The *Lancet* says: "A dentifrice should always be alkaline, because acids are prone to dissolve the dentine. Charcoal was, at one time, a very popular form of dentifrice, and is even now largely used; but from the amount of silica it contains it will rapidly wear away teeth that are not of exceptional hardness, and, moreover, the gums, in some

instances, become tattooed in a curious manner from the absorption of minute particles. Pommice powder again is too gritty, and camphorated chalk is said to make the gums spongy. Precipitated chalk forms the best basis for a tooth-powder, to the basis of which may be added powdered soap and oil of eucalyptus, a drachm each, and if there is no objection half a drachm of carbolic acid."

We would like to know who said camphorated chalk ever made the gums spongy. Of course, precipitated chalk is the only form an intelligent discrimination would accept as the basis of a tooth-powder. As to the matter of particles of charcoal being absorbed in the gums so as to present the appearance of a tattooed surface, the idea is absurd. If charcoal be deposited in the gum from the use of a tooth-brush, any action akin to absorption would remove the charcoal. The truth is, if it remains to discolor the gum, it is not absorbed, and if it were absorbed, it is presumed nobody would find reason to complain.

IMPLANTING TEETH.

As to vital union taking place in implanted teeth, Dr. Younger, of San Francisco, says that, in two cases where implanting was not clearly indicated after the operation had been performed he extracted the teeth and found several patches of living periosteum on the roots, showing that there had been vital union.

The well known experiments of John Hunter in grafting the teeth of sheep into the combs of chicken cocks, were sufficient to settle the question of vital union. The young teeth not only contracted vital union in their new situation, but grew to natural size and form.

COMPARISON.

"A young lady giving her experience in a dentist's chair said, it was hardly as agreeable as a box at the opera, but better than being run over by the cars.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN- TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES- SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF, AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., APRIL, 1887.

No. 10.

GENERAL MEDICINE.

INTRA- CRANIAL TUMOR.

BY
PROF. J. M. DA COSTA,
M. D., LL. D.

A Clinical Lecture deliver-
ed at the Pennsylvania
Hospital.

[Reported for PROGRESS.]

The next case, gen-
tlemen, to which I
shall call your atten-
tion is a more intri-
cate one, though not
so rare.

This patient, a boy
fifteen years of age,
birth-place Brazil,
gives the following

history: His mother, brothers, and sisters
are healthy and strong; his father was killed
in Brazil; it is not known that he possessed
any traces of disease; did not die of dis-
ease; died a violent death.

There is no venereal history in this case;
he was always healthy until about one year
ago; went to school, and sometimes worked
at mule driving. This is all I can tell you
of the history of this patient.

As regards his present illness, our inform-
ant states that one year ago he began to be
affected with headache; this was confined
to the forehead, and became very severe at
times.

Last summer, while at work, he had a
bad fall, and struck his head, after this the
headache became worse, and was accom-
panied by vertigo. About this time he could
not see plainly; and about two months ago
he lost power in the right arm and leg; this
came on gradually. He also noticed that
he did not feel upon touching the left side
of his face, and he could not taste any thing

on the left side of his mouth. He was also
deaf in the left ear, and for two weeks prior
to his admission into the hospital he has had
ringing in the right ear.

For seven weeks past he has been under
treatment for his eyes, but they have gradu-
ally grown worse. He is well nourished,
has a good color, hepatic dullness is normal,
splenic dullness is not increased, the urine
has a specific gravity of 1026, is alkaline
in reaction at the time of examination, *i. e.*,
a few hours after being passed, and there is
no albumen. He has frontal headache, very
severe at times, convergent strabismus, pu-
pils dilated nearly equally so; he can see
much better with the right than with the left
eye; can read ordinary print. There is no
ptosis, although he can not close his left
eye, owing to the drooping of the lower
lid. The tongue when protruded passes
slightly to the left. On examination, I find
him decidedly deaf in the left ear, not being
able to hear the tick of a watch when held
close to his ear. There is some deafness in
the right ear, for although he could hear the
watch at eleven inches still it was a very
loud ticking watch. In the arm and leg on
both sides sensation is well preserved. He
is able to walk, but he drags the right leg
in walking. He can use his right arm, but
movement is not so active as in the left.
There is, also, a very great difference in
the strength of the grasp of the two sides,
the grasp of the right hand is weak; he has
loss of power, you perceive, generally, on
the right side. He walks, as you see, with

a very uncertain manner with the right leg. He can walk with his eyes shut, although with a good deal of fear and uncertainty, still he preserves a straight line.

Standing with his feet together and looking up to the ceiling, his position is such as to be very uncertain, and he sways himself very much. He seems very bright and intelligent, takes notice of what is passing about him, takes interest in his own case. His temperature is about normal, or at times slightly sub-normal. The highest evening temperature is 99° ; morning temperature 98° .

On three successive readings his evening temperature was sub-normal, and only on a few occasions has it reached 99° .

He has no heart lesions; his pulse is a little rapid this morning, and reaches somewhat above normal. I find it now beating at 92, generally it is about 80, still it is but slightly above normal. There is no vomiting, tongue very slightly coated, bowels rather tending to constipation, his mind is always clear. He has not a good memory for dates, no convulsions, he has had no attacks of chorea, he can not shut the left eye, the pupils are responsive to light, the vision in both right and left eye is impaired, more in the left than right eye. On examination with the ophthalmoscope we find choked discs with slight hemorrhages.

What have we here, gentlemen?

There is, in my judgment, one of only two possibilities in this case; Either this boy has a chronic meningitis, with thickening—and then it must be agreed to be at the base of the brain; or else he has a tumor of the brain.

I can not see how you could explain the phenomena that exist here which are those of a defective sensation on the left side, disturbance of hearing and so on, with paralysis of the right side, on any other supposition than the two I have just mentioned, *i. e.* meningitis, with thickening at the base of the brain, possibly crossing and not confined to one side; or else a tumor, which by

its pressure produces the state of things which you have here. In regard to the question I have just mooted, as to whether it is tumor or meningitis, we have a very correct history to start on; we have but the history of a boy who had violent headache preceding and following an injury to the back of his head, no history of blood poisons, no history of syphilis. The history favors meningitis, although I do not think it meningitis, but am inclined to regard it as a tumor. If we can get over that single fact of the history being in favor of meningitis, and perhaps the fall on the back of his head, which we would naturally say looks very much more like meningitis, with thickening, than like tumor. During the examination of this boy I have been inclined toward meningitis, but now having obtained all the facts I shall take occasion to give you my opinion that it is possibly a tumor, and not meningitis; notwithstanding what I have just mentioned with respect to the history being in favor of meningitis, notwithstanding all this there are these points against the existence of meningitis and its ability to produce the paralytic phenomena.

First, the absence of fever. In my experience with it, meningeal trouble always gives rise to fever or febrile fits, and very often that fever is a nocturnal fever, and very often with nocturnal delirium.

Again, there is another point; the temperature is against meningitis.

My experience is that in meningitis of the base, superficial portions of the brain become more or less affected, and irritability of temper and some other cerebral symptoms other than headache will be present, but this boy seems only intelligent. These I give you as some points which are against the occurrence of meningitis, with thickening; and I may add another one, this boy has had no convulsions. When there is meningeal thickening of any extent you are very apt to have convulsions. These are much more frequent with meningitis than with tumor.

Partial choking of the disc may be counted for but little, or rather in favor of the pressure which is caused by a tumor.

I will now point out to you some facts which we have under discussion in regard to the tumor. Let us have some idea as to where the tumor might be situated. With reference to the character of the tumor it is always a difficult matter to get at a conclusion upon; it is a tumor of slow growth. I shall pass over the conclusion that it is a non-malignant tumor without any remarks, for the boy's age is against its malignancy.

It is most probably a tumor with abundance of areolar tissue. Is it possible that it be an aneurism within the brain?

Not likely; the boy's age is against this also, for intracranial aneurisms generally occur later in life. There is a test which is somewhat fallacious, but which is of some value.

With a stethoscope placed over the brow you may sometimes hear the buzzing sound of the aneurism. There is no such sound to be heard in this boy. It is then a non-malignant tumor of slow growth.

Where is the situation of this tumor?

It is not always easy to say positively where the tumor is situated; sometimes it is very easy. The physiological data sometimes point to the situation with unmistakable clearness. Nevertheless I think I can about locate this tumor in a manner which will be satisfactory when you have heard the reasons.

You could not have paralysis of sensation on one side of the face with palsy of motion on the other side of the body unless the lesion were very low down; in other words, this tumor must press on the origin of the nerves as they go to the left side of the face.

It must be above the decussation. Its situation must be on the left side posteriorly. It must press near the origin of the left nerves, or you would not have loss of sensation in the left side of the tongue and face; it presses, moreover, near the origin of the portio mollis; it is not only near the

portio mollis that it must press, it must be near the very origin of the nerve before it goes into its two branches, for the portio dura is also paralyzed.

There is paralysis of the gustatory nerve, as you see by this palsy of the left side of the tongue, and the defective condition of the taste. This tumor is, therefore, at the base of the brain, near the origin of these nerves.

Now we come to his treatment. We will place this boy on large doses of the iodide of potassium. I do not know of any remedy from which he is likely to receive more benefit. He is now taking ten grains of the iodide of potassium; and one twenty fourth of a grain of the bichloride of mercury. The boy reports that he is slightly better of his headache, but there is no improvement in his gait.

Shall we continue this treatment? I shall prefer larger doses of the iodide. He should have twenty grains of the iodide three times a day.

And now what else? Blisters to the back of his neck, and a laxative two or three times a week.

I am at a loss what to tell you about the cause of the boy's tumor. There is nothing in his history which looks like syphilis, and I must, therefore, leave the cause of the tumor in doubt.

In regard to the treatment, remember, large doses of the iodide of potassium, and watch its effects; blisters to the back of the neck; laxatives two or three times a week, and if the headache prevents his sleeping I shall then give him chloral.

GAS IN

TUBERCULOSIS.

The treatment of tuberculosis by the injection of gases has

seized upon the profession like a sudden revelation. A patient in the Louisville Hospital, with extensive vomicae, great emaciation, and loss of appetite, gained twelve pounds in weight, under the new treatment, in the brief period of three weeks.

A METHOD OF
TREATING
DILATATED
STOMACHS.

BY ALBERT MATHIEU,

PARIS.

Translated for PROGRESS
from *Le Progres Medical*, by

MISS KATE RORER,
Student of Medicine.

Dilatation of the stomach is the order of the day; never was so much attention given it in the clinic, and so much importance in general pathology.

Our excellent master, Professor Germain

Sée, in his book on gastro-intestinal dyspepsias, has separated true dyspepsia, the result of a chemical disorder of digestion, from false dyspepsia, which has for its cause a defect of innervation and motility of the gastro-intestinal canal. It is a capital distinction and is found in a number of works of recent years, especially German, devoted to the study of dyspepsia. When I had the honor to have principle charge of his clinic, we resumed, with this main thought the starting point, a study of certain forms of flatulent and painful, so-called, dyspepsia. We soon ascertained that many of the pseudo-dyspeptics presented a common phenomenon intimately connected with other symptoms of their malady, a manifest dilatation of the stomach. We submitted the result of our inquiries in a paper which appeared in the *Revue de Médecine*, of 1884. We were especially struck by the fact that the people attacked by this form of dilatation of the stomach were nervous persons, easily excited, subject to depression and exhaustion. We have often seen these gastro-intestinal accidents following close in the wake of the emotions of sudden fear, of tumult of passion. All of this was well calculated to show the influence of a particular neurosis. The painful crises experienced at the pit of the stomach are easily explained, in our opinion, by a spasmodic contraction of the gastric muscles, perhaps more particularly of the pylorus; and the gaseous distention of the stomach and intestine by muscular relaxation, and the atony following this spasmodic condition. It seems to us that after these alternations of spasm

and depression a kind of atony prevailed, and established itself on account of the absolute exhaustion of the motor-nerves. We know, moreover, that this kind of nervous people are peculiarly subject in the generality of their vital phenomena, in their intellectual acts or motives, to these alternations of excitement and relaxation, and that this last condition in the end prevails.

Professor Bouchard, who has devoted so much study to gastrectasis, and gives it such an importance in pathology, seems to have been particularly struck by the dilatation which gradually sets in without attracting attention, in such a manner that at a certain period it is the general phenomena or remote manifestations which are complained of by the patient. Gastrectasis may pass unperceived, if the astute physician does not think to look for it.

M. Bouchard attributes this progressive dilatation to a congenital weakness of the muscular fibre bundle. The stomach, incapable of resistance, is by degrees distended by the weight of the food, and it soon becomes impossible to recover itself. It no longer contracts when it is empty; it remains dilated. Here, again, it is atony which overrules. M. Bouchard attributes to this original dilatation the beginning and cause of a whole "Iliad of evils." I think, for my part, and the conviction is shortly attained, after examining a certain number of so-called dyspeptics, that many dilatations of the stomach are neurasthenic or arthritic—that is to say, the neurosis and general want of balance of the nerve-motility originated before the gastrectasis, and the conditions brought about by them explains this gastrectasis and its accompanying symptoms; symptoms which are, according to M. Germain Sée, oftener under the control of the intestine than of the stomach. I do not think, moreover, that all the dilatations of the stomach should be ranked in this category, but a great number among them rightfully belong to it.

Besides, dilatation of the stomach is not a

disease, it is a symptom encountered in very different conditions which may be classed, it seems, under the following headings:

1. Dilatation by organic lesion of the pylorus, and contraction of its orifice.
2. Dilatation by degeneration of the muscular fibres of the walls of the stomach.
3. Dilatation by atony, by general weakness which results in a relaxation, more marked of the stomach because it is the largest part of the digestive canal, and supports, as a block, the weight of the indigested food.
4. Dilatation by muscular atony, which having alternated with the phenomena of exaggerated excitement common to the neurasthenic, ends by predominating and persisting.

In the first two classes it is difficult to establish a curative treatment. The organic contraction of the pylorus calls for surgical intervention, which we have tried several times with success. Degeneration of the muscular fibre leaves little other resource, when far advanced, than careful management of the remnant of the muscle, the taking of small quantities of food at short intervals, avoiding, by all means, overloading the stomach, and the mechanical evacuation of the surcharge when it has been accomplished.

In case of simple relaxation of the gastric muscle, it is necessary, as much as possible, to increase the muscular tone and general resiliency, and to restore to the wasted fibres the vigor they have lost. Finally, when, as in the neurasthenic, there is a loss of equilibrium, and a nervous excitability is present, it is necessary at the same time to attempt a re-establishment of this implicated equipoise. All the more necessary, since among these patients, so says our master G. Sée, it is not the question only of gastric phenomena with which we have to deal, but also gastro-intestinal manifestations. Perhaps it is not the least merit of ipecac that it acts at the time on the whole of the digestive canal.

I have sought to cover these various indications, and to institute a corresponding method of treatment. The results which I have thus far obtained have seemed to me sufficiently satisfactory to merit the honor of publicity.

Below are given the theoretical desiderata together with the corresponding practical therapeutics:

1. *To avoid alimentary surcharge.*—It is clearly necessary to avoid suddenly admitting into the stomach an amount of food so great that its weight will exercise an exaggerated traction on its walls.

Following the example of my master, G. Sée, I recommend the patients to avoid food which leaves abundant residue—peas, salads, green fruits, the feculents. This is true in a measure of all green vegetables. I permit the use of only a small quantity of potatoes. The food should be as finely divided as possible; it is important that the food be masticated perfectly; upon this I insist. Finally, if the quantity of food ingested may not be diminished, a small quantity of food must be taken at shorter intervals. Mistrust the wine, since it is so often adulterated. Beer taken at the meals is perhaps useful. To the young beer always appears injurious; so, moreover, are all cold liquids, and especially ices. When there are painful sensations, M. G. Sée recommends the use of warm drinks; warm thin tea in the morning, and in the evening warm light grog. He does not tolerate any other beverage, but he permits the patients to quench their thirst. In taking a warm drink perhaps there is less temptation to yield to too sudden absorption of a great quantity of liquid. This method, however, gives excellent results.

2. *To assure regularity of the intestinal function.*—Nearly all the patients suffering from dilatation of the stomach are constipated. Constipation is perhaps more frequent among those who present flatulence and pain, and we examine into that more particularly here. Lasègue, by an expres-

sion, happy in its familiarity, said the intestinal draught should be re-established. M. G. Sée often used a powder which produced a good effect; it is composed of magnesia, cream of tartar, and sulphur precipitate, mixed in equal parts, a teaspoonful to be taken just before each meal. The patient easily learns to regulate the dose for himself; the dose to be increased or diminished according to the effect produced. Another means, equally satisfactory, is to take a small injection, in addition to one or two teaspoonfuls by the mouth, of glycerine. Cold injections often act better than tepid injections. It is impossible to insist too strongly upon the importance of securing and maintaining regularity of the intestinal function.

3. *To elevate the general tone.*—It is important to raise the general tone of the organism, and to regulate the excitability of the nervous system. For this purpose cold shower baths succeed admirably. When these are not well borne, lukewarm shower baths instead may be ordered, to be thrown along the spinal column. Outside of this objection we have especially made use of cold shower baths in rain from twenty-five to thirty seconds every other day.

4. *To recover more particularly the tonicity of the muscular fibre of the stomach.*—When the cardiac muscle is powerless to respond to its physiological duty, when its cavity is dilated and blood accumulates to excess, digitalis restores the lost vigor and increases its tonicity. The contractions become more regular and vigorous. That which makes digitalis a remedy in systole could it not do the same in gastrectasis, which is in some sort—the word is not mine—a sort of systole of the stomach? Calabar bean and nux vomica have been given in hopes of stimulating gastro-intestinal contractility. There is not, to my mind, a remedy which better fulfills this office than powdered ipecac. It is not necessary to give vomitive doses.

Formerly I administered it in syrup of orange peel:

R. Powdered ipecac gr. 2;
Water gr. 150;
Syrup of orange peel gr. 150.

The patient was directed to take one or two teaspoonfuls of this in the morning for two or three days. I renounced this formula which, nevertheless, gave good results, because it easily provoked distaste and nausea among susceptible patients. At present I give powdered ipecac under a concealed form. I always give, at first, for two or three mornings, a wafer, which contains five centigrammes of ipecac. The greater number of patients do not vomit with this dose; they hardly have the least nausea or salivation. It is no matter if they vomit once or twice. Still, if they are very sensitive to ipecac, and some people are—the susceptibilities of individuals varying—I give them, for two or three days, a wafer containing two or three centigrammes. I believe, indeed, without making a positive assertion, that it is good to have a little fluxion to testify to the action of the medicine.

5. *To calm pains.*—The subjects of neurotic dilatations, with which we have occupied ourselves up to this moment, often have in the epigastrium sensations more or less painful. At times a simple heaviness, sometimes causing internal bodily pains, lancinating, forcibly calling to mind the intense distress of gastralgia, chlorosis, or the pain around an ulcer. Warm drinks wonderfully relieve these pains in the majority of cases. Chloroform is of service; or of more recent date hydrochlorate of cocaine, in doses of five to ten centigrammes. At first, the presence of severe pains, or even marked distress upon pressure in the epigastrium seemed to contra-indicate the use of ipecac. Observation has taught me that such is not the case. On the contrary, with the usual treatment, the pains diminish at least in proportion to the diminution of the other phenomena of the so-called dyspeptic: swelling from wind, eructations, heaviness, nausea, general lassitude, etc.

Under the influence of the preceeding

system and treatment, I have obtained, ever since I began to make use of this method—that is to say, for nearly three years—very encouraging results. My first observations were made at the Hôtel-Dieu, in the service of Professor G. Sée. They have been mentioned briefly in our memoir on atonic dilatation of the stomach. The others were made in active work on a railroad in the East—practice wherein a number of cases of gastrectasis were presented. I shall cite only, under color of example, three cases, which seem to me demonstrative.

I. M. D., a medical student, applied to me February, 1886. At four years of age he had had typhoid fever; no illness again until 1882. At this time he began the study of medicine at Montpellier; advised to put off review on account of weakness of constitution. In 1884, in Paris, declared good for service. At this time digestive troubles began, which were characterized by eructations and abdominal puffiness after meals. In March, 1885, increase of gastric phenomena, erythematous and eczematous eruptions; frequent and severe headache; progressive and rapid emaciation; overwhelming sense of weakness. He was then treated with tincture of badine, and nuxvomica; slight improvement. He then returned to his family to spend vacation; ordered to use the alkalies; no appreciable results. In November, 1885, eight days after his return to Paris, the accidents declared themselves in all their intensity. Alkalies were continued, and pepsin and hydrochloric acid were added to the treatment. Finally one of his chiefs of service put him on the dry system. These various methods of treatment brought about no improvement.

In the month of February, M. D., presenting himself to me, I found him thin and yellow, his features pinched. He complained of general and great weakness, and yet he is of an extremely nervous temperament. He was annoyed by almost continual eructations, which increased after meals. A

short time after eating there was marked abdominal swelling, especially over the epigastrium. He complained of a painful sensation of tension and weight. Constipation marked. Often in distressing condition, sensation of depression and general weakness; unfitness for work almost absolute. Frequently serious and painful headache. Finally, on both sides of his thighs irregular patches of dry, scaly eczema. Upon examination abdominal distention verified; more marked in the epigastrium toward the umbilicus, and in the left hypochondrium. Upon percussion gastric sonorousness perceived in the left seventh intercostal space on a line with the nipple to almost a finger's breadth below the umbilicus. On this level, in making slight successive shakes on the thoracic wall, after the method of M. Bouchard, described in the interesting thesis of M. P. LeGendre, splashing or chopping sound easily evoked. By the Hippocratic succussion a wave-like sound was well established. There existed then, very manifestly, a considerable dilatation of the stomach.

Similar examinations made at different times in various stages of digestion always gave analogous results. The patient placed upon the treatment above formulated. Improvement not slow in manifesting itself. By May, 1886, every symptom greatly diminished. Phenomena of flatulence less annoying. His strength had returned, and with it ability for work. The splashing noise of the stomach no longer found by palpation over the umbilicus. The gastric sonorousness, measured vertically, had lost from twelve to fifteen per cent, or perhaps more. In January, 1887, I can safely say that the improvement established has been maintained and accentuated. The capacity of the stomach seems diminished. There is no more abdominal swelling; there is neither headache nor eczema. The patient feels strong and full of animation. Some months ago he was able to depart from the strict alimentary regimen at first prescribed. He eats fari-

naceous food, green vegetables; even cabbage. At the least indication of a renewal of the hostilities of flatulent dyspepsia he takes ipecac again, and finds immediate relief. He can not yet drink pure wine without new accidents. The injurious effect of wine, moreover, is well established among a large number of patients, and it would be better to abolish this drink in the start. The stools are more regular. When constipation tends to re-establish itself, injections have quickly restored the normal function.

II. D., aged 28, employed on a railroad in the East; very nervous temperament; gastro-intestinal troubles, of which he complained, began four years ago, at which time he was fatigued and overtaxed. At that time he often had severe diarrhea. During the last three months his case had grown worse. About the first of March he came to us complaining of a pain in his left side, and of the phenomena characteristic of a distressing form of dilatation of the stomach; weight in the epigastrium; abdominal swelling; eructations; constipation; pain in the pit of the stomach, with resonance in the seventh intercostal space, and for three or four finger's breadth below the umbilicus; a splashing sound at this level; wave sounds upon succussion; headache and melancholy. He was placed under treatment: Shower baths, ipecac, warm drinks, and injections of glycerine. The fifteenth day improvement was quite perceptible. The dilatation of the stomach had diminished from six to eight per cent by vertical measurement. First of June recovery nearly complete; it has been maintained.

III. P., age 28, employed on a railroad in the East; no history of previous illness. Attacked seven or eight months ago by nephritic colic. Shortly afterward he experienced very lively grief, his wife leaving him, and abandoning at the same time a young child. After that time digestion became difficult; with heaviness in the epigastrium. The patient, who is generally a hearty eater, lost his appetite, became thin,

and his skin yellow. Neither sugar nor albumen in his urine. After meals, puffiness of the abdomen, with eructation of gases; no revulsion of liquids, no pyrosis. The stomach, considerably below the umbilicus, was the seat of a marked rippling or chopping sound. Treatment begun the first of June. At the end of the fifteenth day there was marked improvement; the stomach had reascended above the umbilicus; flatulence had disappeared; no bad feelings after meals. The 24th of July the patient was seen again. Digestion was regular and easy; the general condition good. The cure has been permanent.

The patients, whose histories we have reported, presented those accentuated phenomena of flatulence which are often coincident with the crises of gastralgia; it is in these conditions particularly that the treatment which we have extolled is most efficacious. We have seen it fail in a case of latent dilatation in a patient who presented, besides, epistaxis, polyurea, albuminuria, hypertrophy of the heart, with an evident rapid bruit; at least the improvement was transient. Ipecac, as well as digitalis, should find, in order to act, a muscle so whole as to be capable of contracting with sufficient vigor. Its action implies a relative integrity of the muscular fibre. Now, can one reasonably suppose in the examination of a patient, where interstitial nephritis, arteriosclerosis, a tendency to fibrous degeneration of many organs exists, that the stomach has escaped these general degenerative lesions? We think, finally, that retraction, or the absence of retraction of the stomach, under the influence of ipecac, should constitute in the prospect of the prognosis a point of marked importance. The retraction measures, in some sort, the degree of integrity of the muscular fibre of the stomach, whose contraction and tonicity are put forth within the limits of the possible. It is thus that the utility or inutility of digitalis in systole furnishes to the prognosis an element of importance. There should be, perhaps,

a veritable basis of classification of the gastric ectases, which should discriminate between ectases susceptible of retraction and not susceptible of retraction, sensible or insensible to ipecac. There should be, at the same time, but one important prognostic and therapeutic indication, a diagnostic indication of some value, which will provide a protection in the decision of this capital question: Are the muscular coats of a dilated stomach momentarily or definitely relaxed?

**TYPHOID FEVER
AND THE
TYPHOID STATE.**

BY

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I was induced to write on this subject, not because I had any thing original to say concerning it, but because I wished to emphasize the distinctions which should be

made between a specific disease on one hand, and on the other a condition which is merely a result of protracted high temperature, and which is liable to occur in the course of any fever.

DaCosta says, "No blunder is more common than to misconstrue into typhoid fever a typhoid condition of the system." This is true. I have seen in the last few months cases of remittent fever, which had assumed a typhoid condition, diagnosed, and treated as typhoid fever.

The typhoid state, as I have remarked, is merely the result of high temperature, not produced by the action of the over-heated blood upon the brain—the result is produced indirectly. The heat is produced by the rapid oxidation of muscular tissue, and the residue of this oxidation is urea and carbonate of ammonia in great excess. Normal body heat is produced principally by oxidation of glycogen, and as a result of this combustion 400 grains of urea are excreted daily; but as a consequence of the rapid muscle oxidation during the typhoid state about 1,200 grains of urea are excreted during the same time.

The result of this large quantity of toxic material circulating in the blood is to poison the brain and nervous system. Indeed it is simply a variety of uræmia, and it has the effect of producing the typhoid state. The extreme muscular debility is produced by the destruction of muscular tissue by oxidation.

The typhoid state is described by Tweedie as follows: "It is announced by the decline of the previous more acute symptoms; by the pulse becoming more rapid and soft; the tongue dry and brown, tremulous, and protruded with difficulty; by the incrustations of the teeth with sordes; by the increasing intellectual disorder, indicated by the constant low muttering delirium and the greater insensibility and deafness, and by the condition of the muscular system evinced by muscular tremor, and subsultus tendinum; and in some cases by irregularity or intermission of the pulse; by the patient lying sunk on his back or sliding to the foot of the bed, the muscles being unable to support the body even in a horizontal position."

This condition is common in typhus fever, typhoid fever, puerperal fever, erysipelas, pyæmia, and remittent, and in fact in any fever where there is a long sustained high temperature.

The typhoid state is so commonly associated with typhoid fever that it was formerly supposed to be one of its special symptoms, but it is now well known that such is not the case. It is not uncommon for physicians to meet with cases of typhoid fever which go on to intestinal perforation and death without the supervention of the typhoid state, one such case having recently occurred in the practice of Dr. Rariden, of Bedford. Formerly when the typhoid state occurred in the course of a fever under treatment the physician would say, "The fever has turned into typhoid fever."

On account of the high and continued character of remittent fever the typhoid state commonly occurs in its course. So

common was this complication during the late war that Dr. Woodard coined a name for the complication—"typho-malarial fever." He afterward saw his mistake and recanted, but the term is still in common use as is the term, typhoid pneumonia, which is just as improperly used.

So we see that the diagnosis of typhoid fever does not turn on the existence of the typhoid state. The typhoid state is not one of its necessary symptoms, though on account of the high range of temperature in this disease the typhoid state generally occurs.

The diagnosis rests on the charteristic rise of temperature, the appearance during the second week of the rose colored spots, which, though sometimes absent in children, are nearly always present in adults. Hutchinson, in Pepper's system of medicine, says they are almost universally present, and that the diagnosis must be guarded indeed if they can not be found. The abdominal symptoms, tympanites, tenderness, and gurgling are of course accorded their value. The detection of the bacillus is a positive sign, and it is now becoming common for city physicians to examine the dejections for the bacillus typhoris. The following morbid conditions must be present: Ulceration of the solitary and agminated glands of the intestine, congestion and enlargement of the spleen and mesenteric glands.

A differential diagnosis between the typhoid state and typhoid fever is necessary, as one is merely a symptom which may arise in any fever, and the other is a specific disease. The physician who calls every typhoid condition typhoid fever will come to regard only the patient and to disregard the danger of those who are liable to become affected when he has a case of typhoid fever in his practice. He will see that the typhoid state is non-infectious, and as he makes no distinctions, he will regard them both innocuous.

He should make the diagnosis correctly so he can consider the etiology of his cases

of typhoid fever, and remove the sources of infection, and prevent the danger of general infection. For the same purpose he should use prophylactic measures—such as disinfecting the stools and linen. Unless he makes the proper discrimination he can give no intelligent prognosis, for on one hand he would have simply the typhoid associated with some fever; on the other hand the typhoid state, and in addition ulcerated intestines liable to perforation, and dangerous hemorrhages and medullary infiltration of the spleen and mesenteric glands. He must differentiate before he can administer intelligent treatment. In the typhoid state the temperature is the principal thing to combat, while in typhoid fever the grave special symptoms are to be taken into consideration.

I think that some physicians are not careful in making a diagnosis in these cases, because there is more credit in curing a case of typhoid fever than in relieving a patient suffering with the typhoid condition which is associated with a less dangerous disease. There is some similarity between the typhoid state and typhoid fever which the laity quickly recognize, and they suppose what is simply an untoward symptom in a disease not serious in itself, is the terrible typhoid fever.

<p>BRONCHITIS IN CHILDREN. BY S. HENRY DESSAU, M. D. NEW YORK. [Read to the Obstetrical Section of the Academy of Medicine, Jan- uary 27, 1887.] [Archives of Pediatrics.]</p>	<p>Bronchitis, as it occurs in children, is a disease of such common occurrence, and one that every physician is so familiar with, that it may at first seem like repeating an old, old story to bring any thing that pertains to the subject before you. But it is on account of the very fact that we see so much of it in its multitudinous forms in our daily practice, and that there are so many phases that it assumes, and complications it attends, which often lend it much interest, that I</p>
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have ventured to make it the basis of my remarks this evening.

It is not my intention to go into the subject of bronchitis as it occurs in children in all its various manifestations, but merely to invite your attention to certain peculiar features of the disease which, owing to the close resemblance they frequently bear to certain other pulmonary affections occurring in infants and older children, in my opinion render the study of this disease of great interest. I also wish to present you with certain views by which, I believe, the distinction between the forms of bronchitis I shall consider and other lung diseases in children, which may often be mistaken for simple bronchial catarrh, or *vice versa*, may be more clearly recognized, and to point out certain dangers that are likely to arise as complications or results of the commonly supposed mild forms of the disease, together with the most rational and successful method of preventing and combating them.

Before entering upon the subject-matter of the paper, I would like to say a few words respecting the method of thoracic examinations in children. Many physicians are in the daily habit, when called upon to treat a case of thoracic trouble in children, of performing auscultation and percussion without undressing the patient. This is especially apt to be the case if the ailment seems slight. Such a superficial and unsatisfactory method is to be highly reprehended, for it often exposes the physician to the risk of serious errors of diagnosis, much to his own discredit and the misfortune of his patient. Every child, however young and however slight its trouble may appear, who presents symptoms of an affection of the thoracic viscera should be entirely undressed about the upper part of the body for the purpose of inspection, auscultation, and percussion. Young children, and more especially those under six months of age, breathe superficially, and consequently rapidly, owing to their feeble powers of muscular contraction as opposed to the pressure of

the surrounding atmosphere upon the yielding chest-walls and the resistance of the natural elasticity of the lung-tissue. Consequently, it is often almost impossible, especially in weakly children, to distinctly hear the vesicular murmur without the chest being laid bare and the ear put upon its utmost acuteness to catch the sounds. Where the ear alone is used in auscultation of children, I frequently have had recourse to the plan of making pressure with the left hand over the sternum during expiration, while the back of the chest is supported by the head, so as to induce a stronger inspiration. As a rule, however, I prefer the use of the binaural stethoscope, the one known in this city as Ford's being the one I daily use. Its advantages over the ear directly applied to the child's chest are many. It does not create in the little patient so much alarm, nor require so much restraint, which is all the more likely to bring on a spell of crying and thus defeat our object, as when the ear is applied directly to the chest. Then again, the area over which the sounds are heard through the stethoscope is more limited and more definitely located than when the unaided ear is used. This point is often of considerable value in forming a diagnosis in the pulmonary affections of children, more especially in collapse and catarrhal pneumonia.

When the patient is quite young and unable to sit alone, it will be found that the most convenient position for auscultation is with the child held in the mother's or nurse's arms, its head resting upon her shoulder. This position presents the back for examination, which, in children, is the most desirable part, as the respiratory sounds are more easily heard there, and the child's attention is less excited by the examination than it might be if the front of the chest was used. When the child is older, it is best seated in the mother's lap, or upon a table, for purposes of auscultation, so that much bending of the head will not be required on the part of the physician, as this

latter position is frequently apt to interfere with an accurate appreciation of the sounds heard.

Percussion is best made with the fingers, the left forefinger laid upon the chest, and the right one used as a pleximeter. A rubber pleximeter may, however, have certain advantages, which I shall not deny. A light stroke should be made, as the chest-walls of the child are quite thin, and a heavy stroke might occasionally fail to elicit a certain amount of dullness that existed, owing to the resonance of the superimposed healthy lung-substance. The variations of the force of the stroke can easily be regulated by the use of one or more fingers. One great advantage in using the fingers in making percussion is the easy recognition of *resistance* by the sense of touch, which the plexor and pleximeter fail to convey.

It is always of the greatest usefulness in helping to form a diagnosis of lung-affections in children to take notice of the rapidity of the pulse and number of respirations, and to note their ratio to each other. This pulse-respiration ratio, in children under two years of age in a state of health, may be averaged at about $3\frac{1}{2}$ to 4. These are the figures given by Henoch and confirmed by Eustace Smith. In bronchitis, collapse of the lung, catarrhal pneumonia, and croupous pneumonia, the ratio is often below 3. In bronchitis the alteration of the ratio depends upon the size or order of the bronchi that are involved, being less for the larger and correspondingly more for the smaller ones.

It is equally of importance to observe the character of the respiratory act. In children between the ages of six months and two years the accent will be found to be on the expiration, and in bronchitis and catarrhal pneumonia this becomes so exaggerated as to produce laborious respiration, which is characteristic of these affections. Here expiration is accentuated, owing to the obstruction in the tubes caused by swollen mucous membrane or viscid mucous, or both,

which obstruction is compensated for by an increased expiratory force and longer duration of the effort. (Riegel.) In croupous pneumonia the expiratory effort is usually accompanied with a moan. Pleurisy in children is not attended with either of these features of respiratory alteration. These peculiarities of the respiratory act are not so noticeable in infants under six months of age, owing, perhaps, to their feeble powers of muscular contraction. Palpation may be employed to detect the vocal fremitus in older children, and ronchi, or sounds in the larger tubes, in children of all ages. It is preferred by Vogel to auscultation in bronchitis, especially when the child is refractory. The suggestion which he makes to warm the hands, when they are cold, before applying them to the child's back, is well to be kept in mind. I merely mention this method of examination to say that I have long since ceased to depend upon it to any extent, having found auscultation far more satisfactory.

It should never be omitted to take the temperature with a reliable thermometer. This I prefer to do in the rectum, as we obtain it here quicker and more exactly than in any other part, unless under the tongue, and here it is practically impossible for it to be done in very young children.

Returning to the subject proper of the paper, it has been my experience during sixteen years of private and dispensary practice among children to meet with many cases of bronchitis under two years of age, where the catarrhal process appeared to be limited to one lung only at a time, and to special areas of that lung. These cases at first presented, to my mind, such peculiar physical signs as to cause me to hesitate in my diagnosis. Their further development and termination however dissipated all doubts on the subject, and their study proved highly instructive.

In three of these cases the smaller bronchi were involved for nearly the entire extent of the affected lung, and in one, only a few of the larger bronchi of one side were

involved. This could be readily determined from the character of the râles heard, which, in the first mentioned cases, were of the medium or subcrepitant order, and distributed over the lower two thirds of the affected side, while in the latter case the râles were of the coarse sonoro-sibilant kind, few in number and limited to certain spots.

Each case was attended with an elevation of temperature, ranging from 102° F. to 104°—F. The respiration and pulse were both accelerated, the ratio being altered more in those cases where the finer variety of râles were heard than in the other where the coarser bronchi were found. It was not as low, however, as in cases that I have seen, where the bronchitis affected both lungs simultaneously. In one of the cases it was thought likely that the catarrhal process had extended, during the attack, to the vestibule of the alveoli, producing the complication of catarrhal pneumonia, though if such was the fact it is highly probable that this occurred in distinct and separate lobuli, as at no time could bronchial respiration or increased vocal resonance be heard, nor any impairment of percussion resonance detected.

It is a commonly received opinion, and one seldom otherwise stated by writers on children's diseases, that bronchitis invariably attacks both lungs simultaneously, without regard to the size or order of the bronchi affected, or the extent of the catarrhal process. It is true that this is the ordinary manner of its occurrence, but it is now recognized as equally true that bronchitis may affect one lung or a portion of one lung only, and the bronchi of the third order or bronchioles of that lung, without involving the bronchi of the first or second order. It is usually the case for the catarrhal process in simple bronchitis to begin in the larger and medium-sized tubes and extend from thence to the smaller ones, but we now find that the process may remain limited to either order throughout the attack, or extend inversely from the bronchioles to

the larger tubes. (Riegel, "Ziemssen's Encyclopædia," Vol. iv, page 364.) Vogel, whose views, to my knowledge, are the most notable exception to those of most writers on the subject, regards it as seldom the base that both lungs are simultaneously affected in bronchitis, especially when it occurs as a complication of typhus and exanthematous fevers. J. Lewis Smith mentions unilateral bronchitis as occurring only with tuberculosis and pneumonia, being limited to those tubes surrounded by the tubercular or inflammatory product. West refers to vesicular bronchitis independent of general inflammation of the air-tubes, which may be limited to the lower border of one or the other lobe, or involve the entire lower lobe of either side. The interesting point in such cases as these is the differential diagnosis to be made from pleurisy and croupous pneumonia in their forming stage. This is not always of such easy accomplishment, unless certain minor points, which here become of great significance, are also taken into consideration. The subcrepitant râles heard upon auscultation might easily lead one to suppose on first thought that he had either a croupous pneumonia or a pleurisy to deal with. But the crepitus of croupous pneumonia is much finer and heard in a puff at the end of inspiration, while the subcrepitant râle of bronchitis I have found can often be heard both on inspiration and expiration, in which experience I am pleased to find that I am corroborated by Riegel in "Ziemssen's Encyclopædia," article on Bronchitis. The friction râle of pleurisy, as occurring in children, is a crepitant or subcrepitant râle, but it is more superficial and harsher than the subcrepitant râle of bronchitis, which is a moist râle. Occasionally it may even be coarse or rubbing in character when very little effusion exists. It will be understood that I am referring to the differential diagnosis between pleurisy and croupous pneumonia, and unilateral bronchitis where the *smaller bronchi alone* are involved. Where the larger tubes of one

Lung are affected in bronchitis the diagnosis is comparatively easy, unless the disease is limited to the lower lobes, when it may be possible to confuse the bronchitis with a dry pleurisy. The sonoro-sibilant ronchi of bronchitis of the larger tubes, however, are less sharp and superficial, and are heard for the most part in expiration, while in a dry pleurisy the râles are never sibilant, and are heard both on expiration and inspiration. The breathing of bronchitis differs from that of croupous pneumonia in that it is never bronchial, unless complicated with catarrhal pneumonia, when the subcrepitant râle is heard over the same spot as the bronchial breathing, while in croupous pneumonia crepitus and well-marked bronchial or tubular breathing are never heard over the same spot. In pleurisy the breathing is weak or suppressed when not bronchial.

Percussion affords little satisfaction in the earliest stage of a pleurisy or croupous pneumonia, as there is yet little alteration of resonance, though later the dullness will at once exclude bronchitis. The character of the respiratory act, however, will aid us somewhat in distinguishing bronchitis from pleurisy, as in the former it is always more or less laborious, while in the latter it is more superficial with an effort at suppression. In croupous pneumonia it is usually accompanied with a moan on expiration.

The area of lung over which the subcrepitant râles of bronchitis affecting one lung are heard is, in my experience, so large that it will at once command attention. This was found to be the case at the earliest stage of the affection. In two of my cases the râles were heard as high as the interscapular space, nearly on a line with the spine of the scapula. It is rarely the case that we find a croupous pneumonia or pleurisy developed in its early stage to this extent. The râles of bronchitis become moist and are bubbling or cooing in sound by the second or third day.

Perhaps it is more than likely that cases of pleurisy in children may be mistaken for a

bronchitis, rather than a bronchitis for a pleurisy. The former is the more serious error of the two as regards results, though fortunately the same treatment may be applicable to both diseases.

It has been previously remarked that in one of the cases lobular or broncho-pneumonia was thought likely to be present. My reason for so thinking was based solely upon the persistence of the increased temperature, which lasted for nine days. Riegel, before quoted, I find, mentions, however, that the temperature sometimes becomes elevated for each successive advance of the catarrhal inflammation, where the different orders of the bronchi are attacked at distinct intervals of time. Where the attack was not originally diffuse, this would cause an apparent continuous elevation of temperature for a greater length of time than where the bronchitis is limited in extent or more diffuse at the onset of the attack, leaving out of consideration the involvement of the infundibula and air-vesicles. Such would seem now to have been the possible result in my case. Henoch states that there are no means of determining with certainty whether a broncho-pneumonia is present during the course of a bronchitis, nor can it be positively denied. Especially is this likely to be the case when the broncho-pneumonia is diffused in numerous foci throughout the lung. When, however, these foci coalesce to a certain extent, Henoch refers to tinkling râles and diffuse bronchophony as being present without distinct dullness, the percussion note being more likely tympanitic. As it is generally conceded that most cases of diffuse bronchitis are found on post-mortem examination to be attended with more or less broncho-pneumonia, either the result of the extension of the catarrhal process into the alveoli, or from collapse of certain portions of the lungs from plugging of the bronchioles with tenacious mucous, in the absence of any certain set of signs for determining this complication to be present we must for the while be content with the thermometric guide.

The next point of interest that I have observed in bronchitis in children, and to which I will direct your attention, is the fact that a slight attack, involving only the larger tubes perhaps, may, in children of certain constitutions, cause enlargement of the lymphatic glands at the root of the lungs, which speedily undergo caseous degeneration in their central portion, and afterwards softening and breaking down may infect the various organs of the body with tubercle. It has been my unfortunate experience to meet with one such case in particular, where the bronchitis was not regarded as at all serious in character, being unattended with any high elevation of temperature, the râles being dry and subcrepitant and more manifest on one side. Improvement occurred in the condition of the bronchi under appropriate treatment, and only a few large sonorous bronchi remained. The little patient was thought well enough to be discharged from further treatment, under the impression that in a few more days, with a continuance of the remedies, the lungs would be restored to their normal and healthy condition. Ten days after, however, symptoms of tubercular meningitis set in with vomiting, and the child died on the sixteenth day from a well-marked attack of this fatal disease. An autopsy could not be obtained. There had been no special symptoms of enlargement of the bronchial glands, such as the spasmodic cough, which is, by many, regarded as characteristic of this complication, at any time during the attack of bronchitis. Still, from what we know concerning the pathology of tubercle, it is evident to my mind that the meningitis was the result of absorption of broken-down caseous material, which it is more than probable was furnished by one or more of the bronchial glands. I should also state that the meningitis was attended from the commencement of the attack with a diarrhoea, and it is even likely that this uncommon condition in tubercular meningitis was the result of a more extensive infection man-

ifesting itself, besides, upon the intestines. It is a common experience on post-mortem examination to find enlarged bronchial glands as the result of a catarrhal pneumonia, especially where breaking down of caseous deposits have taken place. These glands, on section, generally show their central portion in a state of caseous degeneration which often has advanced to the stage of softening. From a knowledge of the anatomical structure of the lung-substance, it is easy to understand how the bronchial glands may become enlarged as the result also of a simple bronchitis. According to Hamilton, of Edinburgh, these glands have a direct and continuous connection with the lymphatic spaces found in the peribronchial fibrous tissue and the lymphatic vessels of the lobula septa. The vessels which form the connecting link can be traced in a recent specimen of coal-miner's lung-tissue by means of the particles of carbon they contain, which forms in them a natural injection. This enlargement of the bronchial glands in bronchitis is of a sympathetic nature, apparently analogous to the lymphatic disturbance of distant parts in inflammatory irritation of the skin. In certain constitutions, especially that of a strumous nature, their peculiar products of inflammatory irritation are evolved, and caseous degeneration, usually beginning in the center, and ending in softening and breaking down of the deposit occurs. This has been found to exist in cases of simple, uncomplicated acute bronchitis, where there was no possibility of its being produced through absorption of caseous matter from a catarrhal pneumonic deposit. The rapidity with which these glands sometimes become enlarged, undergo caseation, softening, and infect the body with tubercle is somewhat remarkable.

In the case of a child under one year of age that came under my care at the New York Foundling Asylum, and who finally died of general tuberculosis, premonitory symptoms of meningeal irritation were observed on the third or fourth day of an

attack of bronchitis. The head was thrown back as in opisthotonos, though not held rigid, and at times it was rythmically rolled from side to side for several minute's duration. A catarrhal pneumonia subsequently developed, coincidently with more fully developed symptoms of tubercular meningitis. Death did not occur until at the end of two months. Pathological appearances of enlarged bronchial glands, with central caseous softening and general tuberculosis, were found on autopsy. Huguenin, in "Ziems-sen's Encyclopædia," Vol. xii, page 517, reports a case almost indentical with mine, where the autopsy showed general tuberculosis from a foci of infection in the bronchial glands.

It is now a well-recognized fact that many forms of tubercular disease that were formerly regarded as originating spontaneously have some primary source of infection in some part of the body, and that this infecting substance is of the nature of a ferment. Koch's renowned investigations concerning *bacillus tuberculosis* have laid the foundation for a theory that explains the mode of producing tuberculous manifestations in the body that may be accepted as definitely settling this view. It is not within the limits of the subject of this paper to discuss the question of tubercular infection through inhalation of the specific germs, but aside from this possible manner of infection, there is abundant evidence to show that a deposit of softened caseous matter in the lungs, lymphatics, or elsewhere in the tissues, is the true infecting source of tubercle.

Bronchitis of a more or less degree of severity frequently occurs during the course of summer diarrhea in children. In very young children, especially if not robust and thriving, and in older ones where the diarrheal attack is severe, this complication is liable to prove most serious in its consequences, owing to the readiness with which it is attended with collapse of the lung. The etiology of the bronchitis is not perfectly clear to my mind, though from its

frequent occurrence during the progress of the diarrhea, and its being rarely observed during the summer months in otherwise healthy children, I am inclined to attribute it to a congestion of the pulmonary circulation, dependent upon an alteration in the quality and volume of the blood, the result of the profuse diarrheic discharges. In other words, its cause is probably analogous to the pulmonary congestion which occurs during an attack of cholera in the adult. In a certain number of cases, especially during the process of dentition, I have observed the diarrhea and bronchitis occur simultaneously. These cases occur in winter as well as summer, though in a far less number, and are due to sudden changes of temperature acting upon the intestinal and bronchial mucous membranes, which, owing to the depression of the nervous system induced by the process of dentition, renders them more susceptible to such influences. As before stated, collapse of the lung, in bronchitis complicating summer diarrhea in children, is mainly to be feared, owing to the fact that certain conditions favoring its production are frequently present. Such is the weakened and enfeebled state to which the system has become reduced by the exhaustive diarrhea, the respiratory muscles being rendered thereby less able to overcome the resistance and pressure of the surrounding atmosphere in the act of breathing. The rachitic diathesis, if present, is an additional favoring factor. These conditions acting as predisposing causes, aid to a great extent the mechanism of collapse of the lung, which is well known to consist in the drawing of a plug of mucous from a larger into a smaller bronchial tube, thereby occluding it, and, acting upon the principle of a ball-valve in a syringe, allowing the air from within the alveoli to escape, while none from the distal side is permitted to enter.

I now wish to add a few words in regard to the management and treatment of acute bronchitis as it usually occurs in children,

which will apply, with few exceptions (to be soon mentioned), to all forms of the disease, including, of course, the ones I have referred to; but before speaking of the treatment proper I would like to call your attention to certain hygienic conditions under which the little patient should be placed, as well as the adoption of prophylactic measures, which in delicate children is of prime importance. Regarding prophylaxis in bronchitis, nothing can be better than establishing the habit of cold bathing for the infant. This may be carefully regulated by the use at first of sponging with cold water from the head down to the shoulders and spinal column while the child is in the tepid bath. Afterwards douches and the whole bath should be given successively as age advances. The cold bathing strengthens the integuments and prepares the body for sudden cold or other atmospheric influences.

Most of our patients, in children affected with subacute bronchitis, are not usually considered sick enough to be kept in bed. The youngest ones have to be carried in the nurse's or mother's arms, even if very sick, while the older ones, if sick enough to be kept in bed, are often allowed to remain in their ordinary clothes. I often find among the poorer classes, and occasionally in families of the better class, the little children almost suffocated with the number of clothes they have on, irrespective of the temperature of the weather. I believe that such heavy dressing only exposes the child to contract an additional catarrh upon the slightest change of the weather. If the attack is not severe enough to confine the child to the bed, I direct it to be kept in the room in its ordinary dress, but if sick enough to go to bed, the clothes are to be removed, and nothing but the night-dress worn. Infants while sick should be at all times loosely dressed, and when carried about should be wrapped in a light shawl or blanket. It is a commonly received idea that children affected with bronchitis, how-

ever slight, should be kept in-doors. My experience in a dispensary practice of twelve years in children's diseases has shown me that except in severe cases this is not necessary for a prompt recovery, providing always that the child is kept warm by suitable covering while in the open air. In private practice, however, as there is no occasion for the child to go out of doors, it should be kept in the room. The temperature of the room should be kept at from 65° F. to 70° F., and proper ventilation secured at night by keeping one or more windows drawn down from the top for about eight or ten inches. One great source of all catarrhs in this city in my opinion is the intense heat which is kept up in the dwellings during the entire winter. Even in the rooms of tenement-houses this is often found to be the case in an extreme degree. The sudden change experienced on going into the street, or even another room or hall-way, or coming from the street into the apartment, will inevitably produce the condition of "catching cold." This may be explained, according to Rosenthal, by the superficial blood-vessels of the body becoming paralyzed after one has remained for any length of time in an over-heated apartment, while the body temperature rises at the same time. If the over-heated body, with its enormously dilated superficial blood-vessels, is now suddenly exposed to cold, the body temperature descends below the normal, and the blood of the superficial parts, so suddenly cooled, courses through the internal organs and cools them off more suddenly than would be the case from the simple influence of cold, without the previous influence of greater heat. This sudden cooling acts as an injurious influence in causing congestion in this or that organ, especially if it is already enfeebled, and hence less resistant. It will always be of advantage, if the attack is in any way severe, to have a certain amount of moisture in the shape of steam diffused through the air of the room. This can be easily done by

keeping water boiling over an alcohol stove. The addition of a small quantity of turpentine will be found highly useful and refreshing.

The therapeutics of bronchitis may be regulated according to the order of the tubes involved and the rise of temperature which accompanies the disease. In mild cases, where the catarrhal process is limited to the larger tubes, and there is a very little or no increase of temperature occurring in infants under six months of age, I have found such remedies as the wine of antimony, in doses of one fourth to one half drop, in combination with the wine of ipecac, in doses of one half to one drop, repeated every hour, prove highly efficacious. Small doses of the golden sulphuret of antimony, one twentieth of a grain, triturated with sugar of milk, and repeated hourly, have also given satisfactory results. A stimulating embrocation, as equal parts of spirits of turpentine and olive oil, applied with a piece of flannel to the back and front of the chest until reddening of the skin is produced, will prove of additional service. In children over six months of age, similarly affected, the dose of the antimonial and ipecac wines should be increased to one drop each. I have also found the tincture of bryonia of the German Pharmacopœia, in doses of one half to one drop every two hours, of benefit in some cases. In a few persistent cases of subacute bronchitis in older children, the inspissated juice of *Sabal serrulata*, or saw palmetto, has given gratifying results. The dose is from five to twenty drops three times daily. Where there are evidences of a strumous constitution, the emulsion of cod-liver oil with or without the hypophosphites of lime and soda will be found all-sufficient.

In severe cases of bronchitis, accompanied with an elevation of temperature, and where the medium-sized and smaller tubes are involved, I am in the habit of giving tincture of aconite-root in doses of one half to one drop according to age, repeated every

hour, with the result of reducing the temperature and establishing resolution. If a spasmodic element of the cough is manifest to any extent, much benefit may be derived from the tincture of belladonna in drop doses, given alternately every hour with the aconite. It will be remembered that in the early stage of inflammation of a mucous membrane the secretion is at first diminished, the membrane becoming dry and swollen. Afterwards, the secretion is increased in quantity, while at the same time it becomes altered in quality, being viscid and tenacious. Hence in the early stage of an acute bronchitis, where dry subcrepitant or sonoro-sibilant râles are heard, the practice which is often followed of giving stimulating expectorants, such as the carbonate and muriate of ammonia and squills, in free doses, can only result in aggravating the existing condition. Much more successful results, in my opinion, will be obtained by giving such remedies as will relieve the congestion and swelling of the mucous membrane, through acting upon the force of pressure of the blood circulation or by derivative action upon distant organs whose functions are in a measure compensatory in character. Such is the effect of aconite that I have mentioned, and veratrum viride that I have not used. Nitrous ether, which is a depressor of arterial tension, as the other nitrites are known to be, which thus explains its diuretic effect, is a time-honored remedy in bronchitis, and may be cited as representing the latter class. Spirits of Mindererus, from its sudorific action upon the skin, is always indicated. A favorite combination of mine, which has seldom failed to render me valuable service, is, Liq. ammon. acet., fʒiv; spts. ether, nit., syr. ipecac., āā fʒiss; syr. senegæ, fʒi; syr. limonis, fʒi. M. ʒi every three hours. This formula has been published in an incomplete form in Johnson's Formulary of Wood's Library, and I here take occasion to make correction of the error due, no doubt, to the printer's oversight. I am in the habit of

employing this formula daily in my practice. Its use is not confined to the treatment of bronchitis alone, for I find it equally serviceable in the whole range of acute pulmonary complaints as occurring in children. I do not regard the small amount of senega present as having an expectorant action, but more, if you like, of a specific effect upon the ciliated columnar epithelium of the bronchial tubes.

I seldom have resort to opium except in combination with camphor, as in the tr. opii camph., when it is administered in five- to ten-drop doses, principally at night, as a sedative for the cough.

Hot poultices of flaxseed, sprinkled on the surface with mustard, made large enough to encircle the entire chest and covered with oil-silk, form an important addition to the treatment of the severer grades of bronchitis. Pieces of tape extending across the shoulders should be tacked to the cloth holding the poultice, in front and behind, to prevent the poultice from slipping down. The effect of the heat and moisture, together with the counter-irritation produced by the mustard, which can be regulated in amount to suit the demands of the case, are unquestionably of the highest benefit. Where the bronchitis has extended to the infundibula and air-vesicles and catarrhal pneumonia has developed, I have every reason to believe that a continuous mild counter-irritation, with the flax-seed poultice lightly sprinkled with mustard, has often been the principal means of enabling me to witness the successful termination of my cases. The poultice should be changed about three times during the day and once through the night. Spongio-piline wrung out with hot water answers every purpose of the poultice, besides being cleaner and less troublesome to apply. But, being expensive, it can be afforded only by wealthy families. West recommends the spongiopiline to be sprinkled with a stimulating liniment, such as lin. camph. co., $\mathfrak{z}\text{i}$; tr. canth., tr. opii, aa $\mathfrak{z}\text{ij}$. M., when it is desired to pro-

duce counter-irritation; but I have found the ordinary mustard, lightly sprinkled over the inner surface, do all that was wanted.

When the râles have become soft and bubbling, and not disposed to clear up quickly, I have found three to five drops of a saturated solution of muriate ammonia given every two hours have the happiest effect in clearing up the excessive secretion, notwithstanding in some cases evident signs of catarrhal pneumonia were present. It is important, especially in subjects of a scrofulous and rachitic diathesis, to establish a healthy condition of the mucous membrane of the bronchial tubes as soon as possible. In these cases there is a general tendency for some large ronchi to remain scattered over the lungs after the more severe symptoms have disappeared. The administration of tonics, as quinine and iodide of iron, together with cod-liver oil, is here clearly indicated. Counter-irritation to the back, in the interscapular space, with tincture of iodine should be used, as it is also rightly regarded as a valuable means of promoting absorption of the enlarged bronchial glands, which I have shown are likely to exist.

Inhalations have recently been introduced in the treatment of bronchial catarrhs, and have been found to give valuable assistance in hastening a cure. I have had little if any experience with them in children, but can see no reason why they might not be effective with those over two years of age. They may be used in the form of steam inhalations from a croup-kettle, the water being medicated with turpentine, terebene, iodine, or eucalyptus, or whatever article may be desired. Older children may submit to the use of the hand atomizer, in which the wine of ipecac is recommended by Ringer, or Dobell's solution, which is alkaline and antiseptic, may be employed.

In those cases where bronchitis occurs together with diarrhea as the result of changes of temperature, the antimonial wine in drop doses, repeated hourly, will be found to have a decided effect in reliev-

ing both affections at the same time. When the bronchitis occurs as a complication of summer diarrhea, counter-irritation to the chest with the flax-seed and mustard poultice, together with the administration of stimulants, is chiefly to be depended upon. In infants or weakly children, where a tendency to collapse of the lung is apparent, crying should be provoked and encouraged as much as possible, and alcoholic stimulants freely given. In such cases Day advises the child to be laid face downwards, as it assists breathing, and prevents the tendency of the secretions to gravitate to the posterior and lower surface of the lungs. The same author also suggests that when vomiting becomes a troublesome symptom, the medicine to be given immediately after a spell, in order that it may have a chance to remain longer in the stomach and some portion of it be absorbed.

Jacobi wisely advises plenty of water as a drink, for the purpose of supplying a fluid for the liquefaction of the viscid secretions, and so promoting their easy expulsion. It will also prevent caseous degeneration by keeping the cells bathed in a moisture that will hasten absorption.

I have thus endeavored to bring before you some points concerning bronchitis in children that are not usually dwelt upon at much length in the books, and if it will be the means of inviting a free discussion, I shall feel amply compensated for my time and labor in presenting the subject to you.

PREVENTION OF YELLOW FEVER.	Dr. Urricoechea, a surgeon of battalion, has reported to his superior officer, Dr. Bustamente, of Cucutta, that he has inoculated some of the soldiers to prevent yellow fever. In twenty minutes after inoculation the temperature rises to 40° C., and all the symptoms, in mild form, of yellow fever come on, and disappear without danger to the patient who, on subsequent exposure in virulent epidemics suffers no inconvenience.
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GENERAL SURGERY.

WHAT TO SAY
TO CANCER
PATIENTS.

BY
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Woman's Hospital, of
Brooklyn, etc.*

Many cases of cancer are not well managed, and yet I doubt if any other chronic disease will swing so easily on the pivot of good treatment. Because the notion that cancer is necessarily fatal is widespread,

patients do not make a move as a rule until the disease has crept far along the tissues and into the lymphatic nooks; and because the results of treatment in hopeless cases are not good, the people believe that such results are to be expected from any treatment of any case of cancer.

Then again, we as surgeons are sometimes vaguely hopeful in cases where we should be definitely hopeless, and the patient and his friends, grasping at straws, eventually become discouraged and spread bad news among good patients. Where the truth is ugly we naturally dread to speak it plainly, and unnecessary suffering follows.

The surgeon who makes a diagnosis of cancer, and who expresses his opinion in the presence of the patient, is very apt to suppose that his views are accepted, but if he could follow that patient for a month, and could see him entering the office of numerous doctors in the vicinity, and could hear the different expressions of opinion regarding the case, he would not be surprised at the attitude of dejection which the patient soon assumes.

There is nothing fanciful in this statement, for it is a plain, unvarnished fact that cancer patients regularly go from one man to another, until they arrive at the office of some advertising charlatan who promises a cure, and who presents testimonials, showing that he removed a white cancer of twenty pounds weight from the shoulder of Mr. Jones, and a blue cancer of forty years standing from the leg of Miss Smith. This man gets the

case, and when the patient dies his friends say that only one man promised a cure, and that man failed—ergo—when doctors promise to cure cancer they will fail to do it. Like other social wrongs the “cancer doctor’s” doings will continue to be done, and a very bold front will be required in order to offer any appreciable amount of opposition. Nevertheless it is necessary that attempts at reform be made.

I had not realized the fact that very few cancer patients are properly treated until a few years ago, when a physician who labors in a little village in this State told me that to his knowledge fifteen of his patients had, in the preceeding year, gone for treatment to a “cancer doctor” a couple of hundred miles away, who “drew out” the disease. Subsequent inquiries devoted particularly to this point have shown me that in New York and New England a very large number of patients fail to receive proper treatment—for every one, who places himself under the care of a responsible and competent surgeon derives at least some material relief. The patients who keep out of the hands of the charlatan will not infrequently conceal the truth, and not tell even the family physician about their cases.

It is unfortunate that patients so often fail to understand the surgeon who speaks guardedly about a case of cancer, but that they are more than likely to hear incorrectly, there is no doubt whatever; and it really requires a trained listener among the laity to fully appreciate what any professional man—physician or lawyer—has to say when speaking from a standpoint of professional experience. It is the rule with some public men to insist on reading the reporter’s notes after an interview; and acting on this plan I have sometimes asked patients to take notes, and tell me afterward what I said to them. Conclusions formed by the patients have often been fantastic. To bring up a matter of this sort here may seem commonplace; but since I have adopted the plan of *writing out for the patient* the statements

which are to be remembered, a great deal of satisfaction has been obtained for all parties interested, and when a hopeless case dies it does not have the effect of keeping hopeful cases from coming for treatment.

No surgeon can appreciate the effect of a written statement of the case in the hands of the patient until he has made a practice of furnishing such documents. The patient reads the paper, his friends read the paper, and every cancer patient in the vicinity who hears about the paper will want to read it.

To a patient, aged forty-five years, with a small epithelioma of the lip I might say as follows—(and should then put the statement in black and white): The chances for a cure, or for a fatal ending of the case are about equal if you follow the advice of some one competent surgeon. The “drawing out” method of treatment (arsenious acid, terchloride of zinc, or pyrogallic acid) would perhaps give as good a result as an operation in this particular case, but the operation will be more speedy and less painful. One treatment will, on general principles, be expected to give relief for one or more years, and the surgeon must be visited at the first appearance of each return of the disease if a cure is to be hoped for. There is no medicine which is known to be of any use for curing such a case.

To a patient, aged forty-five years, with a scirrhus cancer of the breast, of moderate size, and of either slow or rapid growth, I might say: It is possible to cure you completely by a radical operation performed according to the methods of to-day. You will probably not be cured. An operation will be expected to give you relief for one or more years, and if each recurrent growth is removed soon after its appearance the disease will not be fatal until it appears in some of the internal organs. An operation will expose you to little if any danger. There will be no appreciable amount of inflammation after the operation, and when the first dressing is removed at the end of three weeks the wound will be healed. Internal medi-

cation will not cure the disease. "Drawing out" methods of treatment will be inefficient and will expose you to danger. There are no secret methods of cure—known to a few men only—who make claims in opposition to this statement.

To a patient, aged forty-five years, with a scirrhus cancer of the breast, of large extent, involving the periosteum of the ribs, I might say: There is no possibility of a cure. You will be much more comfortable if the cancer is removed. There will be little danger in an operation unless the ribs have to be resected. You can, perhaps, enjoy a year of fairly good health, but general infection will take place soon. No surgeon of repute will wish to operate in your case, but such a surgeon may consent to operate for the purpose of giving you short periods to temporary relief.

To a patient, aged forty-five years, with a cancer of the neck of the uterus, I might say: Removal of the uterus may give you relief for a year, or for several years. Chances are in favor of the short period rather than of the long one. The operation is somewhat dangerous, but the attempt is well worth the risk.

To a patient, aged forty-five years, with an epithelioma of the leg below the knee, involving the bone, but not affecting the lymphatics of the groin, I might say: It is possible to cure you completely by amputating the leg above the knee. The chances are about even that the disease will return. A less extensive operation will do little to stay the progress of the disease. No other method of treatment will be of avail in an attempt at eradicating the cancer.

It is not hard to know what to say in cases similar to the ones above referred to. But, perhaps, a large majority of cancer patients will present features, the testimony of which will not give us many clues to the prognosis. There will be cases in which the disease has progressed rapidly to an extent which would augur badly for the patient's chances for escape, and yet the disease

seems to be quite local, and tissues at a little distance, and lymphatic glands a few inches away are apparently not involved. In such cases it is, perhaps, best to say to the patient that the disease must be expected to return at no late date, but that repeated operations during the next year or two will give intervals of relief, which are so complete that health and strength will be regained to a marked extent, and it is not impossible that a respite of several years may eventually be gained.

About nine months ago I operated upon a woman forty-one years of age, who was weak and anemic, and in a condition bordering on nervous prostration. She had a large ulcerating scirrhus cancer of the left breast, which involved the pectoral muscles and the near lymphatics. I removed all bad and suspicious tissues very thoroughly, and since the first operation have removed about once in seven or eight weeks a small recurrent growth situated near the large scar. In the interval the patient has grown strong and courageous, has lost her terrible nervousness, and has increased remarkably in weight. The patient is on the alert for every sign of recurrence, and she is now eager to have each new growth removed promptly.

About five months ago I operated upon a man, who presented a rapidly growing cancer just in front of the lobe of the right ear, with involvement of one or two cervical lymphatic glands. Since the date of the first operation I have removed on an average of once in four weeks recurrent growths which remain confined to the upper cervical region—as to locality of recurrence—and the patient is gaining decidedly in flesh and in strength. Since the date of operation on the first of these patients I have removed several cancerous growths from others whose cases seemed to be still more unfavorable. But with them there has been no recurrence of the disease, and the patients have gained in every way.

If one surgeon in every large town would

devote enough time to the special study of malignant tumors he would be surprised at the number of patients who would go to him—provided that he said things to each patient which would prove to be approximately correct. These patients now slip off quietly to some “cancer doctor” at a distance, and the medical men of the town do not hear of the cases being treated at all, or the patients conceal the true nature of their complaints and pass away, having received nothing more than household treatment. I would not have it understood that I should like to see a cancer *specialist* in every large town—or any where else for that matter—for nothing cramps a good mind more rarely than devotion to a small specialty.

INTERNATIONAL
MEDICAL
CONGRESS.
OPHTHALMOLOGICAL
SECTION.—RULES.

Those who desire to present papers before the Section must advise the Secretaries by the 1st of May, and furnish brief extracts of their papers before the 1st of June.

“No member shall be allowed to speak for more than ten minutes, with the exception of readers of papers and those who may introduce subjects for discussion, who may each occupy twenty minutes.”

Those who intend to be present at the sessions of the Section, and especially those who desire to take part in the discussions, will confer a favor by communicating with the President and Secretaries, who will be further gratified at receiving suggestions as to the work of the Section.

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EYE, EAR, AND THROAT.

THE TREATMENT
OF HYPEROPIA.

BY

E. LANDOLT, M. D.

PARIS.

Hyperopia may be spontaneously rectified. Statistics, however fallacious they may be in general, clearly prove this.

The proportion of hyperopes is much greater among children than among adults. Hence many emmetropes are cured hyperopes; and many myopes were formerly hyperopes; nor have they much cause for rejoicing in this change of refraction, as we shall see.

This diminution and disappearance of hyperopia, which takes place gradually in certain individuals during the period when the entire organism is growing and acquiring its definitive form, may easily be followed with the aid of the ophthalmoscope. The eye participates in this general development, and, from being imperfect, as it has been, becomes normal.

Nature alone can bring about this happy transformation. We are incapable of producing it. Although hyperopia is spontaneously rectified, we possess no means of changing the form of the eye, elongating its axis or increasing the power of its dioptric system.

But, in default of a radical cure, we possess the most effective palliative remedies. These are, before all others, *convex lenses*. Such glasses, by adding their refractive power to that of the eye, can supply any deficit in the latter and correct no matter what degree of hyperopia. More than this, if the accommodation is weak, they come to the aid of the dynamic refraction, as well as supply the lack of static refraction. In short, we have in convex lenses the means, not only of correcting all possible degrees of hyperopia, but of adapting the eye for vision at any desired distance, by relieving its accommodation to any amount that we may wish.

Convex glasses are certainly most powerful and most precious remedies for the hy-

perope; but they are a benefit to him only on condition that he uses them judiciously; otherwise they may do harm, as is the case with any active remedy. In fact convex lenses, and spectacle-glasses generally, must be regarded as remedies. As such they are destined to *second the action of nature*, but in nowise to replace or force it. Hence their use must be limited to strict indications, and we must not try to impose them upon an eye that can dispense with their aid, nor must we give, to him who needs convex lenses, stronger ones than are necessary.

Let us say here, once for all and generally, for all kinds of lenses; the use of spectacle-glasses, even though they be well chosen; has not only its advantages, but also its inconveniences. It is not solely that they are unbecoming, as they are often reproached (and not alone by ladies) with being, nor that they may be broken while being worn, and a piece of them enter the eye. This is certainly a serious disadvantage, if it occurs. But it should not be forgotten that glasses easily become greasy, dusty, and covered with all sorts of dirt, and may thus trouble vision more than their refractive effect increases it. Besides, their borders are sometimes very annoying, and many persons find it extremely difficult to accustom themselves to this cloudy circle surrounding every thing looked at. Moreover, their action is quite different when one looks through them in the direction of their axes and when they are looked through obliquely. In the latter case, the objects looked at may assume very odd shapes, according to the kind and strength of the glasses; they may appear displaced, doubled for both eyes, or even for a single eye, when the edge of the lens is looked through. This fact obliges the wearer to direct his eyes so that the visual lines shall be as nearly as possible perpendicular to the plane of his spectacle-glasses, and thus restricts the field of the eyes' excursions. He has to replace the latter by rotations of his head, which is much more complicated:

Another great inconvenience of spectacle-glasses consists in the reflection-images, which they produce, of objects situated behind them. These images are the more annoying in proportion as the objects toward which one's back is turned are, relatively, better illuminated than the general field toward which one is looking. Let one try, for instance, to cross a room, starting from the windows, the floor being occupied by the usual articles of furniture and lighted only by the glimmer of twilight; one will be stopped every moment by the reflections of the windows, whose brightness destroys the faint impression that one receives of the objects before one. The same thing is observable, too, when one reads with a bright light behind, and a little to one side of the head.

We shall abstain, therefore, from giving spectacles except in cases of absolute necessity, or unless they render the patient so great service that the attendant inconveniences disappear in comparison with it.

In case of the trouble which we are at present considering—hyperopia—we shall have recourse to spectacles only when they are demanded on account of asthenopia or insufficiency of sight. But we shall not prescribe them, for instance, for young persons having low degrees of hyperopia, who see perfectly well both near at hand and at a distance, and have no trace of either asthenopia or strabismus.

When spectacles are ordered, it should be done with the greatest discernment. One must not give way to the idea that, if the glass is not strong enough, the patient will return to have another prescribed, and that, if it is too strong, he should be glad of it, since, in this case, his accommodation will be so much the more relieved. Whoever should proceed on this plan would grossly deceive himself. Between convergence and accommodation, which are customarily associated together, there exists an intimate relation which can not be interfered with without the production of serious incon-

OBSTETRICS AND GYNÆCOLOGY.

THE ANTISEPTIC
METHOD IN
OBSTETRIC
PRACTICE.

BY
HENRY D. FRY, M. D.
WASHINGTON, D. C.
Gaillard's Med. Journal.

The obstetrician of to-day can view with gratification the retrospective field of labor in his department of Medical Science.

The reduction of child-bed mortality is the best evidence of

the progress which has been made.

Steps taken in many directions combine to yield this happy result.

A clearer comprehension of the pathology of puerperal diseases permits a more rational, and consequently more successful, prophylactic treatment.

Treatment is more preventive and more aggressive.

Many puerperal complications are avoided by attention to the hygienic surroundings of pregnant women, by supervision, and by the adoption of measures, it is out of place to enumerate here, which have for their object the improvement of the health of those about to give birth to a child.

At the first note of warning the treatment becomes aggressive. Obstetricians now recognize that many lives have been sacrificed on account of inaction on the part of the medical attendant.

It is aggressive, because the obstetrician does not wait for the occurrence of convulsions before interfering in cases of puerperal nephritis.

It is aggressive, because he acts before his patient has well-nigh bled to death from vicious insertion of the placenta; because the forceps is applied before nature's efforts have flagged to a low ebb.

The dangers of lingering labor are appreciated, and treatment is directed to its relief.

In extra-uterine pregnancy active treatment is instituted as soon as the condition is recognized, and, owing to improved methods of treatment, better results are obtained.

The success of the Cæsarean operation

veniences as regards vision. Even he who sees with only one eye has accustomed himself to a certain position of the body, a fixed distance for his work, a given size of retinal images and a nearly constant effort of accommodation, all of which conditions he can renounce only with difficulty, even when his own interest demands it. Why should he be forced, by too strong glasses, to do this when he has nothing to gain by it?

The choice of glasses is a delicate operation; he alone is successful in it who, to a perfect theoretical acquaintance with the subject, adds the intelligent observation of each patient. It does not suffice to know the action of lenses, from every point of view, and the workings of the visual organ. We must know, more than this, how to individualize cases—that is to say, we must take into account the state of refraction and accommodation, that of the muscles of the patient's eyes, the particular purpose of his wearing glasses, his peculiar habits, and many other circumstances to which attentive observation in practice teaches us to attach importance.

GONOCOCCUS
OF NEISSER.

Recent observations seem to demonstrate the existence of gonorrheal rheumatism. In four cases recently observed, the gonococcus was found in the joints and the genitalia. The test being considered conclusive, it would appear the existence of gonorrheal rheumatism is now well established as a distinct form of disease. It seems, however, a little unfortunate to employ the name of the local lesion as a qualifying term for an obscure, and, we may say, ubiquitous disease. No man may frame in the present state of scientific inquiry a really satisfactory definition of the word "rheumatism."

Yet theories are as numerous and unreasonable on this subject as are many of those on religion. To the discoverer of the specific germ of rheumatism an inheritance of immortality is offered.

depends in great part, as Dr. Harris has shown, upon early action.

These are but a few of the aggressive and, need I say? progressive steps that have been taken.

The result is a saving of maternal and of infantile life.

But, after having studied the causes which combine to effect the diminution of maternal mortality, were I asked, What single element promises to do more than any other to bring about this happy result? I should unhesitatingly say—the application of the germ theory to the pathogenesis of puerperal diseases and the employment of the antiseptic method.

The result is strikingly evident in the large maternity hospitals which, before the careful use of antiseptics, furnished such a large proportion of maternal deaths.

Listerism may be combatted by surgical sceptics, and favorable comparisons made between the results of certain operators who do not use antiseptics, and those who do. but such arguments do not hold good in an obstetrical point of view, and no similar conclusions can be drawn from the mortality lists obtained from those maternity hospitals which ignore antiseptic precautions and those which strictly enforce antiseptic rules.

The most conclusive proof of the truth of the doctrine of the germ theory of disease is furnished by the history of the results obtained by the adoption of the antiseptic method in maternity institutions. In proportion as the rules of the method are enforced, the mortality diminishes.

In 1867, M. Tarnier was appointed surgeon-in-chief of the Paris Maternity. For the nine years immediately preceding his appointment the average mortality per year was 10 per cent. For the next nine years, from 1866 to 1876, it fell to 3.7 per cent; and from 1875 to 1884, it was further diminished to 1.8 per cent. Improvement followed the adoption of antiseptic precautions, and the death-rate decreased perceptibly with the addition of each rule enforced

by Tarnier for the purpose of carrying out a more rigid antiseptics. It was not until during 1882 and 1883 that the method could be strictly put in force, and the mortality for those years was 1.16 per cent and 1.1 per cent, respectively. Any approach to these figures it had never been possible to reach in the history of this institution.

M. Tarnier met with considerable opposition in his efforts to introduce this method of treatment in the Paris Maternity, and, with the object in view of strictly enforcing the principles of the antiseptic method, he had constructed, in 1876, a special pavilion, which is called after his name. Here he realized the best results.

The following is a brief account of the antiseptic precautions employed at the Tarnier Pavilion:

Each woman occupies a separate room. When a woman in labor is admitted to the Pavilion she takes a general bath, if her labor is not advanced too far; if expulsive pains exist, they are content to wash the vulva with a carbolized solution, 1 to 80.

Before making an examination, the midwife and interne wash their hands in a solution of corrosive sublimate, 1 to 1,000. From 1878 to 1882, they employed for this purpose carbolized water 1 to 40. Since the beginning of 1883, they give, during labor, vaginal injections of a solution of bichloride of mercury.

During the period of expulsion, when the head appears at the vulva, carbolized oil, 1 to 10, is applied over the fourchette.

Atomization is not employed, but, throughout the labor, carbolized vapor is produced by boiling an aqueous solution, 1 to 20.

Each patient remains in the room she occupied during her confinement.

Three times a day, when the lying-in is normal, the vulva is washed with carbolized water, 1 to 80.

Intra-uterine injections are reserved for cases in which fetid lochia are accompanied by fever. For bathing the parts they make use of ordinary wadding, cut into pieces

sufficiently large, so that when squeezed they are about the size of a common sponge. Each piece is burned as soon as it has served its purpose.

A compress, soaked in carbolized water, 1 to 40, is afterward applied to the vulva.

These dressings are repeated every three hours, day and night, when the puerperal patient is not doing well.

The rooms, furniture, etc., are systematically disinfected.

During the four years succeeding its erection, mortality in this Pavilion average .8 of one per cent; during the next four not a single death occurred in 785 labors.

The above information is taken from the work of Paul Bar, which also furnishes conclusive proof of the value of the antiseptic method, by giving the excellent results obtained at the maternities of Prague, Copenhagen, Glasgow, and Vienna.

These results should banish the most stubborn scepticism.

What Jenner has accomplished to protect humanity from the ravages of small-pox, Semmelweiss has done to sweep epidemics of puerperal fever from the face of the earth. "Puerperal fever," Semmelweiss wrote, "has existed for 200 years; it is time that it should disappear."

His observations at the Vienna Obstetrical Clinic, begun in 1847, brought to light this evidence: From 1784 to 1822, the physicians connected with the Clinic did not perform post-mortem examinations, and the death-rate was 1.25 per cent. During the next ten years the custom prevailed of making the examinations, and the mortality ran up to 5.3 per cent; and, for the six years immediately preceding the labors of Semmelweiss, to 9.92 per cent.

The introduction of antiseptic precautions caused an immediate fall of the death-rate to 1.27 per cent.

With these general remarks on the value of the antiseptic method in obstetrics, I invite your attention to the consideration of the application of antiseptics to the ordinary

forceps operation. The various antiseptic precautions demanded in the different obstetrical operations differ but little in detail, and those applicable to this operation may be employed for others when modified by changes to meet the exigencies of particular cases. The forceps operation is selected to represent this class of obstetrical work because it is the one, of all others, we are most frequently called upon to perform, and which, when indicated, we willingly undertake, in the interest of either mother or child.

For obvious reasons it would be difficult to collect statistics of the mortality after forceps operations for the purpose of comparing the advantages and disadvantages of a particular line of treatment or of a particular method of operating. Death is rarely due to the operation *per se*. It is the result of the complication which led to the necessity for instrumental aid. Hemorrhage, eclampsia, shock, etc., continue to act. And so, when we come to estimate the value of the application of the antiseptic method to this operation, the same fallacies would enter into any comparison of the results obtained before and after the employment of antiseptic precautions. Antiseptics control but one factor in the cause of death, although a prominent one, viz: puerperal infection. A study of the morbidity of selected cases would probably teach more than a study of the mortality. For instance, eliminating all cases of forceps operation except those which do not present any serious complications, and comparing the "getting up" of those treated by one method with a series of similar cases treated by another method, would give conclusive evidence of the comparative value of the two lines of treatment. Also, investigation into the number of deaths resulting from puerperal infection after forceps operations before and since the introduction of antiseptics would shed much light upon the subject.

We must, then, rest content with the knowledge we possess of the pathogenesis

of puerperal septicemia, and with the general results that have been obtained in obstetric practice by the employment of antiseptic precautions. If the latter tend to protect women from the dangers of puerperal septicemia, and if puerperal infection is one of the dangers and one of the causes of death after forceps operations, no further argument is needed to prove that the application of the antiseptic method to this operation will reduce the maternal mortality. We have seen how great was the reduction of the death-rate in maternity hospitals after the employment of antiseptics; and as the statistics furnished by these institutions comprise the results of thousands of deliveries, it is but fair to infer that a proportionate number of instrumental cases was included in the calculation.

At a meeting of the Washington Obstetrical Society, held November 6, 1885, I read a paper on the "Value of the Antiseptic System in Private Obstetric Practice, etc.," and one of the distinguished members present took occasion to express regret at the simplicity of the method recommended for the prevention of puerperal infection. An opportunity is again offered for the same objection. Antiseptic midwifery in private practice is made up of a number of little details; it is all simplicity. The antiseptic precautions demanded in maternity hospitals are otherwise.

Here the number of cases examined and the number of examiners for each case, the impure atmosphere, the use of the same instrument or instruments for different cases, and the proximity of sick women, all tend to increase the dangers of infection, and consequently demand greater efforts to overcome them. Failure to secure the desired result is caused by a neglect of some little detail. It is absolutely necessary for the physician to recognize this fact.

Paul Bar says: "The obstetrician, in order that he may apply thoroughly the antiseptic method . . . ought to be convinced that all cases of infection that he observes

are due, careful though he may have been, to some fault committed; generally, indeed, he discovers that he has neglected to practice some little procedure, trifling in appearance, but the application of which would have sufficed to protect the patient."

Recognizing the fact that puerperal fever is contagious, and that the contagium is a germ which usually gains access to the system through wounds of the genital tract, the prophylactic indication is clearly to guard the patient from the action of this poison. This is accomplished by:

1. Preventing the transport of germs to the genital canal of the woman.
2. Killing those which elude our vigilance, and
3. Limiting the production of traumatic injuries as much as possible.

If we could possibly prevent the conveyance of germs to the genital passages of parturient women, there would be no occasion to employ an agent to destroy the micro-organisms, and if we could be sure of destroying the vitality of those that succeed in gaining access to the parts, there would be no danger to apprehend in this respect from the occurrence of lacerations of the genital canal. But, owing to the difficulty of accomplishing either of these three indications, we attempt to obtain security by striving for them all. The union of our forces is the strength of our opposition.

Every effort is sometimes fruitless, and we witness in the dreaded fever the manifestations of a successful invasion of the subtle foe.

The first object, to prevent the transport of germs, is sought to be obtained by, *a*. Cleanliness; *b*. Antiseptics.

The second, by the destruction of germs by antiseptics; the third, the prevention of traumatic injuries, by conducting labor in such manner as to limit, as far as one can, the lacerations of the genital passages due to too rapid dilatation of the canal, or to too rapid passage of the foetus through the undilated canal.

Cleanliness refers to the physician, the attendants, the patient, and every thing brought in contact with the patient. Good results are obtained by this alone, but it is not, as some would claim, all that is necessary to protect women from the ravages of childbed fever.

Cleanliness is one step in advance, the antiseptic method is two; it is cleanliness *plus* something else, and that something is an agent that will destroy the vitality of micro-organisms. Its destructive power upon these agents is proved experimentally, and its protective influence against puerperal infection is proved by practical experience. Isolation, ventilation, and cleanliness were powerful weapons with which puerperal fever was formerly fought, but epidemics of the disease were not controlled until antiseptics were employed.

In the application of these principles to the forceps operation the following simple rules should be enforced:

The obstetrician should wash his hands and forearms, first with warm water and soap, afterwards with an antiseptic solution. The finger nails should be trimmed and all dirt removed from beneath them. A stiff nail-brush should be used, and the parts scrubbed so as to remove all loose epithelial matter. Similar precautions should be taken by attendants, the nurse, or by any one who will be brought in contact with the patient's genital organs, with the physician, or with the instruments.

The forceps should be immersed in a warm antiseptic solution, and not removed until ready for introduction. The blade can be inserted, moistened only with the antiseptic fluid or carbolized oil, glycerine, or vaseline may be employed.

The patient must also be prepared for the operation by bathing the vulva with an antiseptic solution, and when this shall have been thoroughly cleansed, by administering an antiseptic vaginal douche.

For washing the hands, and for the vulvar and vaginal douches, a solution of bi-

chloride of mercury, 1 to 2,000, is the safest antiseptic. As this agent is injurious to metallic surfaces we can substitute antiseptic solutions of carbolic acid, boracic acid, or iodine, for the fluid in which to immerse the forceps or any instrument that may be made use of. A tablespoonful of compound tincture of iodine in a quart of hot water makes an excellent antiseptic solution. The carbolic-acid solution may be from two to four per cent, and the boracic acid from three to five per cent strength.

Every attention should be given, during delivery with forceps, to avoid, or to limit as much as possible, lacerations of the parturient canal. Ruptures of the perineum should be immediately stitched, provided the condition of the wound offers a prospect of union of the divided surfaces. Slight tears and extensive gangrenous-looking lacerations are best treated by antiseptic vulvar and vaginal injections, and by powdered iodoform.

When labor is terminated and the placenta removed, the vulva and vagina must be washed again with the bichloride or carbolic-acid solution, and the dressing applied to the genitalia. The ordinary napkins, which have been used to receive the menstrual flow of each succeeding month, are not fitted for such a purpose. If employed, they should have been previously washed in an antiseptic solution, and when soiled must be subjected to the same treatment before being used again. Pieces of unbleached muslin answer the purpose better than these napkins. In using either, it is well to place a piece of antiseptic absorbent cotton between the vulva and the cloth. The occlusion dressing employed by Garrigues at the New York Maternity Hospital is preferable to any other form of vulva dressing, and having once been employed by a patient she will be loth to do without it on future occasions of this nature. The dressing should be changed once in three, four, six, eight, or twelve hours, as demanded by the quantity of lochial flow. At each renewal the vulva

should be cleansed with an antiseptic solution. This is best done by projecting a stream of the fluid against the parts from a syringe, not forcibly, or by squeezing the antiseptic wash from a piece of absorbent cotton held above the parts.

Vaginal injections must not be employed unless required by some special indication. Lacerations of the perineum or cervix, fetid lochia, fever, etc., call for their use.

When giving an antiseptic vaginal injection, always precede it by cleansing the vulva with the same or another antiseptic agent.

PUERPERAL

PERITONITIS.

In Dr. McMurtry's letter, at page 496 of this issue of PROGRESS,

may be found a brief recital of a case of puerperal fever treated by abdominal section, which disclosed an extensive collection of pus in the Fallopian tube of one side. This tube was taken out, the wound closed, and the woman's condition marvelously changed for the better. She had no fever, but a trifling amount of pain, and marched straight on to complete recovery. This case is a great lesson in surgery. It shows the terrible responsibility assumed by the obstetrician, who, generally after delivery, continues in charge of the patient; and for whom, should she have puerperal fever, he does not hesitate to order poultices, stupes, and narcotic doses of opium. All this, of course, means certain death. The lesson is that puerperal fever means pelvic or abdominal abscess, the only remedy for which is ablation.

In many cases of puerperal fever the obstetrician supplies the contagium from the finger-nail deposit. In that great reckoning which is said to await all mankind, how many cases of manslaughter may be charged to lack of that sort of godliness which accompanies the free use of soap and water, it were fearful to contemplate. Prof. Reamy, of Cincinnati, takes a bath, trims his nails, and uses antiseptic ablution with a brush.

PATHOLOGY AND HYGIENE.

BRONCHO- PULMONARY MYCOSIS.

BY

WILLIAM F. WAUGH,
M. D.,

*Professor of Practice, etc.,
in the Medico-Chirurgical
College.*

[*Phil. Med. Times.*]

Perhaps no other plan of treatment recently proposed has excited so much attention as Cantani's novel method of treating consumption by bacteriotherapy. The singularity of the therapeutic measure,

and its apparently logical deduction from recent developments in bacterio-pathology and biology, combine to invest it with peculiar interest. But whether the inference be logical or not—whether the introduction of bacterium termo into the pulmonary tract, as an antagonist to the bacillus tuberculosis, be a genuine addition to our therapeutic armamentarium, or perchance may turn out to be rather a bringing of the Saxons into Britain—there are two questions which should be settled before the experiment is made on a large scale.

First: Is the introduction of bacterium termo a safe and harmless procedure? Second: Is it efficient in this case? Both questions should be settled before the method is applied in the treatment of pulmonary tuberculosis; and both could readily be determined by experiments on animals.

Perhaps the history of the following singular case may assist in answering the first question.

The patient is a man, twenty-five years of age, spare in habits, with delicate digestive organs. His father, when young, had bronchial hemorrhages, but is still alive and reasonably healthy. One member of the family died of phthisis. During the preceding year the patient had suffered with a vesical affection, but had been quite well for some months before the present illness began. He was connected with the management of a cemetery.

One day the body of a woman was brought to this cemetery, with a certificate which gave

pulmonary consumption as the cause of her death. Her natural weight was one hundred and thirty pounds, but shortly before her death she had rapidly increased, until the body weighed two hundred and twenty pounds when she died. The body was placed in a crypt in the receiving vault.

Some time subsequently the workmen reported to Mr. B. that there was something wrong with this vault. The door was opened, when it was found that the floor was covered with a putrid substance, which was traced to the crypt in which this body had been deposited. The body of the consumptive woman had burst, and the fluids had overflowed from the coffin and escaped from the crypt.

The stench was pronounced to be something indescribable. So terrible was it that the employees of the cemetery, men who may be supposed to be fully familiarized with such things, could not be induced to enter the vault to clean it out, until Mr. B. set them the example by going down into it himself. Previous to this, large quantities of carbolic acid and of chloride of lime had been thrown into the vault; but even by this means the stench could not be overcome.

As soon as Mr. B. entered the vault and began to inhale fully its mephitic air, he began to shiver and experience the sensations known as "taking cold" in the most intense form. After remaining at his home for some days, on September 20, 1886, he presented himself at my office. He could scarcely talk for the constant cough. He had a temperature of 102.5° , and stated that he had night-sweats. There was some redness of the fauces, which disappeared after a few applications of tannin; but the cough was but little relieved. The expectoration was of thin, colorless fluid, very abundant. His sleep was greatly disturbed by the constant coughing. Altogether it was a typical bronchorrhœa.

In the first number of PROGRESS, a little foot-note stated that a valuable indication as to the nature of lung-affections could be

drawn from noticing whether the sputa dried up, as a simple bronchial discharge dries up in a few hours, whereas tubercular sputa liquefy and become pure cultures of tubercle-bacilli. Recollecting this, I inquired of Mr. B. if the sputa became dry, and he at once responded that he had noticed with surprise that they did not, but that, after remaining in a receptacle from morning till evening, the masses were even more fluid than when first expectorated.

It appeared evident that here was an infection of the pulmonary region with some morbid agent. But with what? Was it due to the inhalation of the carbolic acid, of the bacillus tuberculosis (presumably the cause of the woman's death), or of the bacterium termo, the agent of decomposition, which evidently was at work in the fetid vault?

His body exhaled the odor of the acid for days after he entered the vault. But the action of this agent, which might set up a broncho-pneumonia, would not account for the bronchorrhœa.

To settle the question, I procured a specimen of his sputa, and sent it to Dr. De Lannoy, of the Medico-Chirurgical College, with a request that he should examine it microscopically. I subjoin his reply:

PROFESSOR WAUGH.—The sputum, which I examined very carefully, contains *no tubercle-bacilli*, but fairly swarms with putrefactive forms, the so-called microbacteria; these occur in zooglyea as well as in chains.

The epithelium from the air-vesicles is strongly pigmented. This change is to be attributed to broken-down blood-corpuscles which have parted with their coloring matter.

If this sputum be perfectly fresh, it certainly does, as such, contain an extraordinary number of microbacteria.

From what you said of the trouble, I judge it to be lodged in the smaller bronchi. The presence of vesicular epithelium, pathological in character, would corroborate this, and the necessarily long-continued retention of the expectorated matter might account for the large number of microorganisms.

Yours very truly,

C. W. DE LANNOY."

During the succeeding two months the patient improved somewhat under a carefully-directed treatment, but did not recover his accustomed health. Full alimentation was enjoined. The ordinary remedies for bronchorrhœa were tried, including Griffith's mixture, cubebs, copaiba, lactophosphate of lime, turpentine, and benzoin. The use of hydronaphthol with an atomizer proved more beneficial than any thing else which I tried.

But after two months of treatment I was compelled to send him to San Antonio, Texas. At the time he departed his fever had not quite disappeared, and the expectoration had diminished greatly, but still retained its fluidity, and if treatment were suspended for a few days it increased to its first proportions.

Since his arrival in Texas he has improved very much, has increased thirty pounds in weight, and has gained in strength and in spirits. The cough and expectoration have decreased, the fever scarcely ever appears, but he has on several occasions expectorated a little blood. From his letters I judge that a certain amount of pneumonic phthisis has supervened. An examination by a skillful physician of San Antonio failed to detect any sign of tubercular disease or of tubercle-bacilli in the sputa. I do not as yet feel justified in allowing Mr. B. to return to this climate, especially at this season. The improvement still continues, and in all probability he will make his permanent home in Texas.

Altogether, this appears to me a case of infection with putrefactive bacteria. It shows that PROGRESS went too far in claiming the liquefaction of the sputa as a certain sign of tuberculosis, as it may be due to the presence of other bacteria. It may throw some light on the etiology of other cases of bronchorrhœa, not colliquative in character. Finally, it should make us cautious in instituting extended trials of Cantani's method, until experiments on inferior animals have demonstrated the value of bacteriotherapy as compared with its dangers. At any rate,

it seems better policy in the human body, as in the body politic, to strengthen the system against the attacks of the enemy rather than to introduce foreign auxiliaries.

THE LIQUI- FACTION OF TUBERCULOUS LYMPH.

Since the publication of the paragraph to which Prof. Waugh alludes, the editor of PROGRESS has made a number of experiments, which disclose the fact that the presence of mature bacilli, even in large numbers, will not prevent the exposed lymph from drying. The expectorated lymph, however tough it may be, will, if it contain very young bacilli, even in small numbers, become liquid frequently at small points here and there, whilst the main body of the mass gradually dries out and becomes hard. It often happens that a part of the expectorated lymph liquifies on exposure to the air, and another part is dried out and becomes quite hard. Now as to the influence of the bacterium-termo, it is pretty generally known that it rapidly transforms both lymph and flesh into a semi-liquid state. In a sample of tuberculous lymph corked up in a vial, after remaining four days, a sufficient amount of gas was formed to expel the cork. The contents smelled of putrefaction. The bacterium-termo existed in great numbers, and here and there were small colonies of tubercle bacilli. In this sample advanced decomposition was permitted to take place; and subsequent examination was made which still showed the presence of the bacillus tuberculosis in colonies.
--

There is much to be learned from the case reported by Prof. Waugh; and it would seem from the experimental observations of the action of the bacterium termo that it has little or no power to destroy the bacillus tuberculosis. If the bacterium termo is able to produce a profuse and inundating bronchorrhœa, and this seems, at least, strongly probable, then we must search out some means of expelling or destroying this germ.

BOOKS AND PERIODICALS.

THE REFRACTION
AND ACCOMMODA-
TION OF THE EYE,
AND THEIR
ANOMALIES.

BY

E. LANDOLT, M. D.,
PARIS.

Translated under the au-
thor's supervision, by

C. M. CULVER, M. A.,
M. D.

*Formerly Clinical Assist-
ant to the Author, Mem-
ber of the Albany In-
stitute, etc.*

With one hundred and
forty-seven illustrations.

Philadelphia: J. B. Lip-
pincott Co. 1886. Cloth,
8vo. pp. 600.

Ever since the great work of Donders on the anomalies of refraction and accommodation was first published, there has been a wide-spread desire for more elaborate details concerning the best means of relieving the complex phenomena of ametropia and asthenopia. Prof. Donders, not being a practitioner, it is reasonable to infer has had but limited opportunities to learn enough of the prac-

tical application of the great principles involved in the study and the correction of optical defects in the eye, and has not exhibited any disposition to revise and enlarge his original treatise. Dr. Landolt, from the high position he has long held, and the great reputation he has won, both as a teacher and practitioner, it was reasonably expected would be able very greatly to enlarge the therapeutical domain of anomalies of accommodation and refraction. The mathematical details involved in the determination of the refracting lenses had already been brought to a well nigh perfect state by the labors of Scheffler and Donders. That Dr. Landolt has been able to enrich this branch of the science, is seriously questioned by many of those best qualified to judge.

At page 143 this awkward title appears, "Dynamic refraction of the eye accommodation." The author proceeds with the proposition that a person can not see both a distant and a near object at the same time, but that the same eye can see distinctly at very different distances, etc., much after the fashion of the philosopher who attempts to show that three units and two

units added together make five units, and that we may have either three units or two units, and not have five units. Dr. Jurin's appendix to Smith's Optics, published at London in 1738, discussed all these questions in a clear, practical and purely scientific manner, establishing both theoretically and practically the change of form in the refraction of the eye adjusted for varying distances. William Porterfield in 1759 published his magnificent treatise on the manner and phenomena of vision. In this work may be found a vastly more comprehensive account on the change of form necessary in the adjustment of the eye to different distances than that of Landolt. It might be well to suggest to Prof. Landolt that the so-called "Full History of the Theory of Accommodation" in Helmholtz's classical work was derived mainly from Smith, Jurin and Porterfield. It might be well also to mention incidentally that the statement which ascribes to Dr. Young the announcement of the probable change of form in the crystalline lens in 1801 needs slight revision. The truth is, Dr. Young's first essay upon this subject was read to the Philosophical Society in 1793. The experiments upon which Dr. Young's thesis rested were thoroughly discussed at that time, and frequently thereafter, until 1800, when Dr. Young again appeared with a more elaborate account of his study of the structure and the functions of the fibres of the crystalline Lens. To say that the discovery of the part played by the lens in the act of accommodation is one of the finest achievements of modern physiology, assumes a fact not yet demonstrated. The experiments of Hensen and Voelckers on dogs, cats, monkeys, and freshly enucleated human eyes, by irritating with an electric current the ciliary nerves, showed the forcible contraction of the pupil with retraction of the peripheral border of the iris and bulging of the pupillary margin. It is unwarrantable to say the choroid was drawn towards the cornea, because no proof whatever has been

adduced, notwithstanding the fact the observation is said to have been made through an opening cut in the juncture of the cornea and sclerotica opposite the ciliary muscle. And even granting that the surface of the exposed muscle actually advanced or contracted under the electrical irritation, that does not show that the choroid body was drawn towards the cornea. Muscular structures may be contracted and relaxed to a limited extent when both extremities are fixed. Pins stuck perpendicularly into different parts of the choroid were said to have indicated by their swaying ends that the contraction of the ciliary muscle really moved the choroid. Now, these pins were stuck through the ciliary muscle; and nobody doubts the power of an electrical current to produce contraction in the fibres of this muscle. The movement in the muscular fibres would naturally go on under the presence of an irritation independently of any change in the position of the choroid. If it were true that irritation of the ciliary system of nerves brought on the phenomena described by the enthusiastic gentleman so confidently quoted by Landolt, it would necessarily follow the accommodation of the eye for near objects could be brought on by strychnine and by electricity. There is too much loose statement, too many confident declarations of fact, with a corresponding poverty of demonstration, to entitle this portion of Landolt's work to the confidence of students. The experiment of sticking pins into the ciliary muscle to prove that the surfaces of the crystalline lens change in accommodation would appear to do away with all the demonstrations of catoptrical experiments. The catoptrical test is such a demonstration as the most exacting mathematician would require; whilst the movements or swaying of pins might be shown to arise from more than one cause, and that wholly independent of any change of relationship between the choroid body and the crystalline lens. No careful student of the various theories concerning the

mechanism of accommodation could, however plausible it might be made to appear, accept without further proof the truth of such statements as the following, viz: "The contraction of the ciliary muscle causes the zone of Zinn to advance, and thus diminishes the traction exerted by the latter upon the crystalline lens. The crystalline lens abandoned to itself, assumes the form which the elasticity of its fibres naturally give it and becomes more convex, especially at its anterior surface. When the innervation ceases, the ciliary muscle is relaxed, the ciliary processes become tense and stretch the zone of Zinn, which in turn flattens the crystalline by exerting upon it a traction in the direction of its equator. The nerves of accommodation—i. e., of the ciliary muscle—belong to the third pair, which contains as well the fibres distributed to the sphincter of the pupil. Their origin, according to Hensen and Voelckers, seems to be in the floor of the fourth ventricle. Irritation of the anterior portion of the latter produces accommodation; that of a portion situated further back causes contraction of the pupil, and when the part where the fourth ventricle passes into the aqueductus sylvii is irritated, contraction of the rectus internus is produced. The fibres which control dilatation of the pupil arise from the cervical portion of the great sympathetic. According to Hensen and Voelckers, not all of these fibres pass through the ophthalmic ganglion."

The figure at page 293 ingeniously represents the refracted rays of light, and may serve the valuable purpose of making clear to the student a matter which has hitherto been, to say the least, but imperfectly understood. It is not yet demonstrated, however, that astigmatism may increase with age in proportion as the crystalline lens becomes capable of correcting it. Here, again, Prof. Landolt commits the great error of attempting to separate dynamic from physiological ametropia.

TO BE CONTINUED.

A TREATISE
ON DISEASES
OF THE SKIN,

With special reference to
their diagnosis and treat-
ment, including an an-
alysis of 11,000 consec-
utive cases, by

P. MCCALL ANDERSON
M. D.,

*Professor of Clinical Medi-
cine in the University
of Glasgow, etc.*

With colored plates and
numerous other illustra-
tions.

Philadelphia: P. BLAK-
ISTON, SON & Co., 1012 Wal-
nut Street. 1887. Cloth, 8
vo., pp. 662.

This handsome vol-
ume embodies the re-
sults of unusual op-
portunities, during
more than a quarter
of a century, of study-
ing the diseases of the
skin. It is, moreover,
the work of one whose
practice is not con-
fined exclusively to a
study of cutaneous
affections; for Prof.
Anderson, in addition
to his great labors in

dermatology, teaches clinical medicine in
the hospital and at the university.

Many of the chapters on diseases of ex-
otic origin have been written by Dr. James
Christie, who, having resided abroad, pos-
sesses especial qualifications. The purely
surgical affections have been treated of by
Dr. Cameron, Surgeon to the Western In-
firmmary; while the chapter on ulcers is the
work of Dr. William Macewen.

In many respects this is the most im-
portant treatise on skin diseases which has yet
appeared. It is at once the work of a master
in pathology and an experienced clinician in
therapeutics. To the general practitioner,
who has been accustomed to such works as
those of Neumann and Hebra, or Erasmus
Wilson and Tilbury Fox, this work of Prof.
Anderson will prove a genuine surprise.
There can be but little fault to find with the
text.

Prof. Anderson names rubeola as a syn-
onym for epidemic, roseola Rothelen (Ger-
man measles). He says: "Some physicians
seem to be under the belief that this is a
hybrid of measles and scarlet fever; others,
that it is a modified form of measles; just as
some still assert that chicken-pox is a modi-
fied form of small-pox. The general view,
though, is that it is a substantive affection.
It is a complaint that always breeds true;
although, no doubt, a mild and isolated case
of measles might be mistaken for it. It is

highly contagious, especially in the case of
children, and the period of incubation is
usually a couple of weeks."

In the treatment of eruptive fevers, Prof.
Anderson feeds liberally, but cautiously.
He expresses great confidence in Carnrick's
Beef Peptonoids, which, by the way, the
reviewer can fully endorse. There can be
nothing more grateful and advantageous
to the fever patient, whose thirst is great,
than from two to four ounces of ice-cold
milk containing a deserts spoonful of the beef
peptonoids. The disagreeable odor and
brackish taste of the peptonoids in water
has prevented many from prescribing this
form of nourishment. Combined with fresh
cold milk, however, the peptonoids form a
choice and rich delicacy to most persons.

A careful study of Prof. Anderson's hand-
somely illustrated work affords ample proof
that, although it is devoted by title, and for
the most part, to the consideration of those
diseases which affect the skin, he is, never-
theless, always happy in his illustrations of
the important relations subsisting between
the general economy and its covering. A
dermatologist, whose knowledge is more
than skin deep, and whose ideas of pathol-
ogy and therapeutics include a consideration
of all the general and local manifestations
of the common diseases of the economy
which are manifested upon the surface, will
find many appreciative readers on both sides
of the Atlantic.

It is needless to say that the work of the
publishers has been admirably done. The
cuts, many of them colored, are drawn with
great accuracy of detail, and present a sharp
degree of clearness seldom seen in this day
of cheap engraving. The last part of the
work is devoted to a consideration of the
action and mode of administration of the
now almost universally popular antipyretics.
Typhus and typhoid fevers are included un-
der the proper heading. The work, as a
whole, must find favor with the profession
everywhere. It is decidedly the best trea-
tise we have seen on the subject.

MANUAL OF TREATMENT.

A concise presentation of the modern methods of treating disease employed by the best authors, teachers, and practitioners. By

C. F. TAYLOR, M. D.,

Editor of the *Med. World*,
and

W. F. WAUGH, A. M.,
M. D.,

*Professor of Practice and
Clinical Medicine in the
Medico-Chirurgical
College of Philadelphia.
Physician to
the Hospital, etc.*

Published by the *Medical
World*, 1520 Chestnut Street,
Philadelphia. 1887. 8 vo.,
cloth.

This work was begun in June, 1885, by Dr. Taylor; and subsequently, by the aid of Prof. Waugh, the work of revision and extension to the completion of the volume was done. It embraces an alphabetical arrangement of diseases, followed by an elaborate, though terse description of the various methods of treatment. Where these are very numerous and complicated, a summary, which includes only the more important methods, is given. It is to the general practitioner a veritable mine of concrete knowledge, provided, however, he be well up in diagnosis and pathology. Ophthalmology is omitted entirely from the text. The subject matter is arranged in alphabetical order, but the titles are so few that it is difficult to make reference to any particular part of the text.

It is a great misfortune, indeed, that a work of this size and character, embracing as it does so much concentrated information, should have been sent out without an index, or even a table of contents. A carefully prepared index would, no doubt, give to this manual great popularity; and we hope the publishers will proceed at once to prepare one thoroughly elaborate and well-digested, to be supplied in suitable form for pasting in the volumes already sold, and which could be made a part of the matter to be bound in all future issues. It used to be the custom to dwell at great length on the theories of some noted teacher before offering a suggestion as to the treatment of disease; now science affords the means of direct suggestion on independent ground. The work of the publisher is well done, and the 532 pages are exceedingly cheap at \$4.50, the price charged.

THE NASHVILLE MEDICAL NEWS.

Semi-monthly.

RICHARD DOUGLAS,
M. D.

AND

JOHN W. MCALISTER,
M. D.

To be issued the 1st and 15th of each month. April 1, 1887, No. 1, Vol. 1. Subscription price, \$2.50 per annum. Brandon Printing Company, publishers, No. 9, North Summer Street. Thirty pages, double column, octavo.

From the salutatory it appears that the *News* has been brought forth after due consideration of the need of a journal of its character and the liberal offers of encouragement by the professors at Nashville. It is especially intended for the profession South and West. It is intended to be an abstract and brief chronicle of the science and art of medicine, elementary, pathological and therapeutical, of the current time. Competent contributors have been engaged and others will be invited. Neither in its editorial columns, or otherwise, will the *News* be the organ of a medical school. Although its editors claim Nashville to be the recognized Athens of the Southwest, the first article is from the erudite pen of Robert T. Morris, of New York. It is a charmingly written paper on the subject of gunshot wounds of the brain. The second article is a clinical lecture on carcinoma of the stomach, by William Pepper. There are other interesting original communications by different writers; and if we may judge by the first issue, the *Nashville Medical News* is likely to become a popular organ. We extend to it our best wishes and a copy of *PROGRESS* for its exchange table.

LISTERISM.

BY

G. GRANVILLE BANTOCK, M. D.;

F. R. C. S. Ed.

*President of the British
Gynecological Society.*

This is an address which undertakes to set Listerism at naught while the principle upon which it is founded is set forth in striking contrast. From a clinical standpoint, Dr. Bantock does not believe germs are dangerous, *i. e.* that seeds will sprout and grow. But he insists upon excluding every thing which furnishes food for the microbe, and proclaims the absolute necessity for perfect cleanliness.

CORRESPONDENCE AND SOCIETIES.

DR. L. S. McMURTRY
AT
PHILADELPHIA.

The great men, the great hospitals, and the traditions of a great city, surgeons, surgery, and journalism.

MY DEAR DR. REYNOLDS: Since the foundation of the republic this city has been a center of medical education, and the field of labor of

many leading physicians and surgeons of the new world. There is much here to interest the medical man. Walking through the splendid library of the College of Physicians a few days since with Professor Parvin, I saw on every hand how the giants of the preceding generations had builded a precious legacy, to be handed down the ages. As we stood amid the collection of books and specimens collected and bequeathed by the late Professor Gross, we remarked how no solid work is ever lost, but remains to instruct the coming generations long after the urn has contained the incinerated body. The library is excelled in value and utility only by the great Washington collection in this country; and the collection of pathological specimens alone could occupy one's time for weeks with instructive illustration. The earnest face of Benjamin Rush, the bright eye of George B. Wood, the massive head of the elder Pancoast, the graceful form of Physick, and the refined features of S. D. Gross, painted and chiseled by faithful art, look upon the visitor here in gentle benignity. One can not but feel that they are indeed, in the language of Fitz Greene Halleck, among

"The few, the immortal names,
That were not born to die."

The Pennsylvania Hospital is another place of almost sacred interest. The entrance is at the rear of the hospital, which, more than any place I have ever been, except, perhaps, Mount Vernon, seems to cherish and value its traditions. Upon the occasion of LaFayette's last visit to this country, that patron saint of American lib-

erty was driven in the front gate to the front entrance and out the iron gate at the other end of the semi-circular drive. Since that time these iron gates have never turned upon their hinges, and no one has gained access by the front approach.

One can see the strong masonry which arched the cells where insane patients were confined, now converted into alcoves for beds along the ward. There is a lesson and a mark of modern progress in this observation; indeed, a triumph of humanity and science over barbarism and blind force is recorded. It is well to cherish traditions in stone and furniture, in custom and in speech, but when I saw all fractures of the leg treated with the old-fashioned fracture-box, and the patient confined to bed, it seemed that tradition was being overdone. This method is still followed in the Pennsylvania Hospital. The dressing of plaster-of-Paris would secure immobility and retention, allow the patient exercise, and more rapid and certain union would follow, to say nothing of comfort to the patient and convenience to the surgeon. This reminds me that I saw an unique treatment of fractured patella in this hospital on the occasion of my first visit. The patient was a muscular subject, aged thirty-five, who had fallen upon the knee and fractured the patella transversely. The operation was done by Dr. Thomas G. Morton, familiar to all your readers by reason of his work done in this hospital. The patient being anesthetized, he cut down on the bone, and after drilling holes with the dental engine, the fragments were drawn together with heavy catgut, and the wound closed and dressed upon a posterior splint.

I am glad to record that respect for tradition has not been able to exclude Listerism from the surgical practice of the Pennsylvania Hospital. This operation was done with regard for every detail of the antiseptic system. The surface of the limb and the field of operation were irrigated with bichloride solution during the operation, and instruments, sponges, ligatures, etc., were im-

mersed in carbolic solution. The entire joint was washed out with bichloride solution before the wound was closed. The dressing used was carbolized gauze, and all sutures were of chromicised catgut. No sponges are ever used twice, after each operation being thrown away and destroyed. This is the second time this method of dealing with a fractured patella has been resorted to in this hospital, firm union having been secured in the former case, I was told. If I could see this patient one year from now, I could justly estimate the value of the method.* But before the days of Listerian principles in surgical practice, who would have dared to open up and irrigate the knee joint, removing all effused blood and serum, and thus deal with a fractured patella. And yet we hear now and then some one say: "I don't believe in the antiseptic system," etc. One can scarcely realize how this can be until one remembers that even now there are many people in England and Germany who deny the utility and protective power of vaccination. They will all come around on the principles of Lister, bye-and-bye, for these principles have done more to advance the practice of surgery, gynecology, and midwifery, than any thing of this century after anesthesia.

As you know, the principal object of my visit East is to see the advanced methods and work of leading American practitioners in gynecology and general surgery. Since the day following my arrival here I have put in three hours daily at the gynecological clinic of Dr. Joseph Price, at the old Philadelphia Dispensary. To Dr. Price I am indebted for repeated acts of courtesy, kindness, and hospitality. He is a pains-taking, conscientious worker, and is conceded here to be doing very superior work, particularly in abdominal surgery. He is not half way through the thirties, and has by ability, industry, and conscientious application placed himself in the very front rank of those de-

voting themselves to this line of work. In abdominal operations complete protection of the patient from sepsis runs throughout all the details of his methods. Absolute surgical cleanliness of patient and environment of assistants and nurses, of surgeons and instruments, asepsis by hot water of ligatures, sponges, and dressings. He uses iodoform freely over the surface of the closed wound and in the dressings, but rarely uses the bichloride and carbolized solutions. I have had the opportunity to watch the progress and after-treatment of his cases as well as the operations. I saw a patient this morning in which an hysterectomy was done some days since, and the *neude* just removed. She was sitting up in bed, bright and cheerful, and her temperature chart at the highest point had only marked 100° F. Dr. Price has the largest gynecological clinic in this city, at the Philadelphia Dispensary. More than one hundred women are treated there by operations, visits, and local treatment every week. Dr. Charles B. Penrose is Dr. Price's chief clinical assistant, and he has in addition the aid of Dr. J. M. Baldy in the visiting service. I saw Price do a laparotomy for a tubal and ovarian disease of the right side this morning. From the diagnosis made several days ago, to the minute details of the operation, it was a finished piece of work. One laparotomy done ten days ago contained a valuable lesson I shall endeavor to record here. A woman, aged 30, was confined four weeks before the operation. Her labor was difficult, and four days afterward she had a chill, followed by high temperature, sweats, abdominal tenderness, and all the symptoms of puerperal peritonitis. This condition continued, with emaciation and exhaustion, and an examination of the pelvis by the touch disclosed a boggy tumor upon the left side. At the time of operation the pulse was 120, and the temperature 103° F. On opening the abdomen the boggy tumor was found to consist of a mass containing the left Fallo-

*Three weeks afterward Dr. C. B. Penrose informed me the patient is well, going about with a good knee-joint, and firm union of the patella. L. S. McM.

pian tube and ovary firmly attached to the sigmoid flexure. The tube formed a large, long mass, as large in its lumen as the duodenum, and was filled with pus. The ovary was embedded in the mass of adhesions. Monsell's solution was required to arrest the oozing from the surface of the bowel where adhesions were severed, and the abdomen closed. The operation was done by Dr. Baldy, one of Dr. Price's assistants in the gynecological service of the institution, with assistance of the latter gentleman. A tube of course was inserted for drainage. This woman made an uninterrupted recovery; the febrile symptoms at once subsided, neither pulse nor temperature ever reaching as high as 100 after the operation.

Here was a woman rescued by laparotomy who would almost surely have died under the stereotyped treatment of opium internally, and turpentine stupes to the abdomen. The day is rapidly approaching when the practitioner will no longer be willing to sit by and see death follow suppurative peritonitis, intimidated by that old fear of the peritoneum, but instead will promptly open the cavity, and treat an abscess by evacuation, irrigation, and drainage, as in other parts of the body.

At the Jefferson College Hospital I saw Dr. Da Costa, one of the gynecologists to the hospital, do a trachelorrhaphy two days since. He did not etherize his patient, but relied upon the injection of cocaine into the cervix. The result was that the woman suffered intensely throughout the entire operation. I was surprised to see that the patient was in the dorsal position, and that Sims' speculum was not used. Prof. Parvin with characteristic courtesy showed me through this hospital. In his own ward I had the pleasure of seeing two of his patients in advanced convalescence after ovariectomy at his hands. Last Saturday I saw Dr. B. F. Baer do an ovariectomy in his private hospital; and for to-morrow I have an engagement with Dr. Wm. Goodell to see some of his work.

You have doubtless examined the first numbers of the *Medical Register*, the new weekly journal, which has made its appearance here under the editorial management of Dr. John V. Shoemaker and Dr. William C. Wile. It is a very handsome journal, and these capable and active gentlemen will place it at once in the very front rank of American medical journalism. Both are experienced editors, and being experienced and successful practitioners, know just what is needed for a practical, useful weekly journal for the busy practitioner. The journal is backed with ample capital, and has come to stay. I predict for it a brilliant career, full of usefulness and popularity.

I go to New York next week, and may send you some notes from that metropolis.

L. S. MCMURTRY.

PHILADELPHIA

LETTER.

By our Regular Correspondent.

W. H. MORRISON,
M. D.

Rupture of the Long Head
of the Biceps.—Treatment
of Phthisis by Sul-
phuretted Hydrogen.
Items.

A case illustrating an unusual accident and a novel method of treatment was presented, shown at a recent meeting of the Academy of Surgery by Dr. Thomas G. Morton. A laboring man, while working in an excavation throwing dirt to the street above his head, suddenly felt something give way in his right arm which at once became useless. Examination showed that there had been a rupture of the long head of the biceps. An incision was made over the body of the deltoid, and a second incision over the tumor formed by the contracted biceps. The tendon was then grasped with forceps and pushed beneath the intervening bridge of skin until it appeared in the upper incision. The fibres of the deltoid were next separated at as high a point as possible, and the tendon inserted and secured with cat-gut sutures. The wounds were then closed and treated in the ordinary antiseptic manner and healed without complication. When presented to the Academy a few

weeks after the accident, the patient had good use of the arm and could flex it with considerable force.

The treatment of pulmonary phthisis by the rectal administration of sulphuretted hydrogen as recommended by Dr. Bergeon, of Lyons, is at present receiving a great deal of attention in Philadelphia. Last week Dr. J. Solis Cohen, President of the County Medical Society, gave a demonstration of the method at the German Hospital. The plan is briefly as follows: The sulphuretted hydrogen is forced into the bowel by a current of carbonic acid gas. This latter formed by the action of dilute sulphuric acid on carbonate of sodium, and is collected in a rubber bag holding six quarts, from which all atmospheric air has previously been expelled. The gas bag is then connected by means of a hand-ball aspirator to a Wolfe bottle, containing a highly charged natural sulphur water. In the demonstration, the Red Sulphur Spring water of Virginia was employed. The sodium sulphide contained in the solution is decomposed and hydrogen sulphide formed which is carried over with the carbon dioxide. A tube with a nozzle to be inserted into the rectum extends from the bottle. Before the tube is introduced into the bowel, the atmospheric air is to be forced from the apparatus by compressing the hand-ball a few times. This is an important point. The nozzle is then inserted and the gas slowly introduced into the bowel. Dr. Cohen places the bottle containing the sulphur solution in hot water in order to make the injection more agreeable to the patient. At least twenty or thirty minutes should be occupied in performing the injection, and from three to five or six quarts of gas are used. The rapidity of the procedure is to be regulated by the sensations of the patient. When the abdomen becomes distended, causing discomfort, the injection should be suspended for a time to permit absorption to take place. Dr. Cohen has employed this method in a number of cases with relief to many of the symptoms, but

the observations have not been continued sufficiently long to enable him to say what the final results will be.

Dr. Edward T. Bruen has also employed this method extensively during the past two months at the Philadelphia Hospital and has obtained very gratifying results. He prepares sulphuretted hydrogen by passing the carbon dioxide through a solution of chloride of sodium and sulphide of sodium. The quantity employed has varied between three and four quarts repeated twice a day. The good effects obtained have been reduction of the temperature, suspension of the night sweats, lessening of the cough and expectoration, and in some cases all the physical signs of bronchial catarrh have been abolished.

Neither of the above gentlemen have met with any alarming symptoms in carrying out this method of treatment, but at a recent meeting of the County Medical Society, Dr. William Osler stated that in one case in which carbon dioxide and sulphuretted hydrogen were employed, the patient nearly expired during the administration of gas. It is stated by French observers that even a few cubic centimetres of sulphuretted hydrogen gas are sufficient to kill a good sized dog. Other physicians connected with institutions in which many cases of phthisis are treated, are making arrangements to try the use of rectal injections of sulphuretted hydrogen, and doubtless in a short time the place occupied by cocaine in the medical journals of last year will be filled by sulphuretted hydrogen.

Dr. William Goodell, who for twenty-two years was physician-in-Chief to the Reston Retreat, an institution devoted to the care of respectable married women during confinement, recently resigned, and Dr. Joseph Price has been elected to fill the position.

Dr. William Hunt, who a short time ago was run over by a wagon and seriously injured, we understand is doing well.

It is stated that Dr. H. C. Wood has been

tendered the Chair of Medicine in the Johns Hopkins University, of Baltimore. It is also said that the offer will probably not be accepted.

BREACH OF
PROFESSIONAL
ETIQUETTE.

A DISCLAIMER AND A
CORRECTION.

LOUISVILLE, KY.,
April 1, 1887.

Editor of PROGRESS:

SIR—In your March issue I published that a leading Medical Society of Louisville had been guilty of a breach of professional etiquette in permitting the secular press to publish what purported to be a part of the regular proceedings in such manner, and form, as to make an erroneous impression of my report of a case made to the Society.

I am pleased, sir, to be able to retract that charge, in so far as any imputation of responsibility of the Society is concerned. The following communication reached me eighteen days after my published letter had gone to press.

March 15, 1887.

DR. J. A. LARRABEE,
My Dear Doctor:

At the last meeting of the *Medico-Chirurgical Society*, your letter of resignation was received and the Secretary instructed to forward you the following resolutions passed unanimously:

Resolved, That the Medico-Chirurgical Society of Louisville disclaims any responsibility for the publication in the secular press of the case reported by Dr. Larrabee at the meeting at Dr. J. B. Marvin's.

That the Society regrets that such publicity was given and requests that Dr. Larrabee withdraws his resignation.

That the Secretary be instructed to send Dr. Larrabee a copy of these resolutions.

Yours very truly,

J. M. RAY, *Sec. L. M.-C. S.*

The readers of PROGRESS will be able to see how urgent the necessity of my retraction of the charge against the Society; and may, I hope, readily understand why I appeared as a complainant at all.

Very respectfully,

JOHN A. LARRABEE.

GROWTH OF
MEDICAL
EDUCATION.

BY

DUDLEY S. REYNOLDS,
A. M., M. D.,

LOUISVILLE, KY.

An address delivered to the
Alumni Association of the
Medico-Chirurgical
College of Philadelphia
on the evening
of April 7, 1887.
[*Medical Register.*]

Coming to the chief centre of learning in the United States to discuss questions of education, I know requires some degree of boldness, not to say self-assurance, lest the memories of Rush, Physick, Meigs, and Gross may rise up, in the minds of those

who are assembled in this temple of learning to confound my speech and make my poor utterances seem contemptible in comparison.

The importance of my theme, and the interest I naturally hope to awaken in the minds of this audience, emboldens me to make the attempt to discuss, in a few brief sentences, some of those great questions which have occupied the greatest intellects in the busiest moments of their most important and beneficent enterprises.

When anatomy was studied in a few of its meager outlines merely, and for the most part in secret, there came forth a man named Monroe, in the great city of Edinburgh, where Benjamin Rush, Ephraim McDowell, Walter Brashear, David Hosack, and Ben Dudley received their first medical training, and with the force of great eloquence and a thorough mastery of, what appeared at that time, all of the details of anatomy, investing the dry bones of the skeleton with a fascination but little less forcible than that with which the immortal Shakespeare has clothed the cowardly assassin of Duncan, Scotland's famous king. Monroe was so great in his style and manner of teaching that the medical school at Edinburgh became for the time the leading medical institution of the world. From that day to the present the study of anatomy has been rendered simple and easy.

An ambitious physician of that time, jealous of Monroe's great success and reputation as a teacher, built a hall in Edinburgh

and established therein a museum of anatomy. To his amphitheatre he invited the students and practitioners of medicine to hear him lecture and witness his demonstrations.

He rattled the dry bones before his audience with such energy, and spoke with such eloquence, that he soon robbed the great university of all its students at the time of the usual lectures on anatomy. This man's boldness in exhibiting the skeleton, and even the cadaver itself, for the purpose of demonstration aroused great excitement, but the earnestness with which he prosecuted his work finally won for him that success he so much deserved.

This may be said truly to have been the very beginning of illustrative methods in medical teaching. It was a long time, however, before other branches of the curriculum advanced beyond the prevailing theories of a few leading men.

On the 9th of July, 1790, Dr. Benjamin Rush stood in the hall of the College of Physicians in this city and delivered an eulogium upon the life and character of William Cullen, the author of a new system of medicine. Said Dr. Rush: "This illustrious physician was the preceptor of many of us; he was, moreover, a distinguished citizen of the republic of medicine, and a benefactor of mankind; and, although like the sun, he shone in a distant hemisphere, yet many of the rays of his knowledge have fallen upon this quarter of the globe. Dr. Cullen possessed a great and original genius in discerning the relation of distant truths by the shortest train of intermediate propositions. His imagination surveyed all nature at a glance, and, like a camera obscura, seemed to produce in his mind a picture of the whole visible creation. His knowledge was minute in every branch of medicine; he was a great anatomist, and an ingenious physiologist; he enlarged the boundaries and established the utility of chemistry; he stripped *materia medica* of most of the errors that had been accumulating in it for

two thousand years and reduced it to a simple and practical science."

At the time Cullen made his appearance as a teacher the doctrines of Boerhaave were universally prevalent; Boerhaave believed all diseases depended chiefly on the presence of certain acrid particles in the fluids of the body, and in a departure of these, in point of consistency, from the natural state.

Says Dr. Rush: "Cullen's first object was to expose the errors of this pathology, and to teach the public to seek the causes of disease in the solids."

Cullen's theories concerning the nervous system so impressed his eulogist that he boldly proclaimed "no man would ever unravel the operations and the whole nature of the nervous system without being forced to acknowledge that the foundation of his successful inquiries was laid by the discoveries of Cullen."

The pathies and isms arose, and flourished for the edification of imaginative people. The few facts pertaining to every branch of medical education, excepting anatomy and botany, were so scattered as to defy every attempt at establishing principles, until finally Billings came, and the new pathology of Simon opened up new fields for speculation and experiment.

Dissection became a recognized part of the curriculum, and was openly announced as part of the requirements in all the best schools.

John Hunter's great thirst for experimental knowledge had now well nigh taken hold of the world, when Jenner came as the apostle of a new creed, based upon the experiences of the humble dairy-maids. Vaccination as a protective measure against the small-pox remains an unexplained fact.

Presently instruments of precision began to be employed; vivisections of inferior animals were made, and the science of biology began to receive fresh attention; the humoral pathology, Homœopathy, Thompsonianism, and all the "isms" and "pathies" paled

into so many dim shadows over the fields of former conquests.

The medical student now, instead of sitting patiently by the hour listening to the beautiful sophistry with which individual theories and hypotheses concerning the nature and character of disease were supported, has, at length, come to the point where demonstration of the theories and illustrations of the methods of practice are demanded.

The growth of medical education, it may be said, has been slow. Twenty-five years ago there were, indeed, but few schools in the country where clinical and laboratory instruction formed any thing like a prominent feature of the curriculum. The result of these practical methods of inquiry, and the substitution of the few demonstrated facts applicable to the study of disease has been wonderful. A great and new science of pathology is now established upon the ruins of Cullen's popular theory.

The great Pancoast comes no more to stand before you with burning lips and irresistible arguments to convince you of the superiority of his method of treating wounds; in his stead, the gifted son invites you now to the dispensary and to the clinic-rooms, that you may see for yourselves the masterly touch of his cunning hand in the adjustment of fractured bones, or witness his skilful methods of staunching the flow of the crimson tide in wounded arteries. You are not asked to believe upon the mere statement of your professor of chemistry, whose beautiful experiment of the consuming powers of oxygen and the frigid powers of carbonic acid gas are, upon the one hand, the life-giving force in the atmosphere we breathe, and on the other, the death-dealing force in the dark recesses of subterranean caverns. He does not content himself with telling you that carbonic acid gas is evolved from the mixture of sulphuric acid and carbonate of lime, but proceeds at once to the demonstration, and with the magical processes of his art he compels

every member of the class to become practically familiar.

In the pathological laboratory, which is an institution of comparatively recent device and origin, you now study in the dead subject the nature and extent of those changes wrought by disease.

Experimental research has at length brought to light the startling fact that nearly all of our diseases, and especially the contagia, arise from specific micro-organisms, which, although their life histories have been studied with great minuteness of detail, can not with certainty be classified as animal or vegetable in their nature. A minute rod-shaped body, called by its discoverer, Dr. Robert Koch, the chief of the great "Gesundheits Amt." of the Prussian empire, the *bacillus tuberculosis*, is now universally recognized as the cause of all tuberculous processes in man and the inferior animals. It has likewise been discovered by experiment that this bacillus is wafted in the air; that it grows in lymph by preference, and when inoculated or injected beneath the skin, it passes into the blood-current, and there seizes upon the germinal matter, or sarcode of the white blood-cell, arresting the cell instantly in its course, causing it to assume enormous dimensions, interfering in that way by obstructing the blood stream, and presently, when it ruptures to discharge its myriads of spore-cells, to attack in like manner contiguous leucocytes, until the current of blood in that tube is arrested. This of course speedily brings on those changes characterized by heat, pain, redness, and swelling.

Now, when the bacillus is breathed into the air passages, if the whole of the respiratory membrane be sound upon its surface, the bacillus will not grow, but will find a temporary lodgment in the mucous, and presently be snuffed up and hawked out, or coughed up and expectorated. If, however, these bacilli or their spore-cells lodge upon an abraded surface, where they gain ready access to the lymph-tubes, they colonize and

grow there, and by slow invasion, the whole pulmonary lymph system may be destroyed. With these facts, we are at once prepared to appreciate both the means and the reason why tuberculous disease generally invades the respiratory organs first, and why tuberculosis as an inheritance generally proves fatal to the infant.

The specific cause of suppuration in wounds has recently been brought to light in the discovery of microbes, which collect in groups, and which, when assembled in large numbers, present a golden-yellow tint. This is called the "*staphylococcus aureus*," and to some recent experimental researches of Prof. Cornil, of Paris, and Prudden, of New York, we are indebted for the demonstration that suppuration in wounds is invariably the result of the presence of this microbe.

Scarcely less brilliant have been the discoveries in chemistry and physiology. Merck, of Darmstadt, has at last succeeded in producing, by synthesis, many of our most valued therapeutical agents, and in 1879 he brought forth a new product by this agency, which is now known and prized by every ophthalmic surgeon in the world.

In testing the refraction of the human eye it is necessary to suspend the focusing power in order to secure accurate results. For this purpose the sulphate of atropia, long in universal use, required, in many cases, from three to five days' constant use of the drug to bring on complete suspension of the accommodation, and then from twelve to fourteen days were required for the patient fully to recover from its effects. The hydrobromate of homatropia, made by the synthetical method of Merck, while at the same time free from toxical effects, is speedy and more uniformly efficient in suspending the accommodation than any drug hitherto employed for that purpose, complete suspension now being possible within the brief space of an hour and a half, and all signs of its effects disappearing uniformly within thirty hours. It is likewise powerful

in the relief of pain, and may be instilled into the eyes of children with perfect impunity in solutions of the same strength as are used for adults.

Further, the manufacturing chemists now separate the active principle from the crude drug, and prepare our most potent medicines in granules, triturates, and compressed tablets, all divided for convenient use. With the exact knowledge now conveyed to the student of medicine in the clinic rooms and laboratories of our colleges, the minutiae of scientific processes must be mastered, and the graduate, armed with these powerful weapons of so many exact sciences, goes forth to practice in communities where general intelligence makes closer discrimination as to the qualifications of the medical practitioner than were made in former years. The aid of legislation has in recent years come forth as a thunderbolt from the people against empiricism and quackery.

In this great commonwealth your legislative authority has wisely ordered that no man shall practice without a diploma, duly signed by one of the lawfully constituted faculties of instruction in a regularly established medical college in Pennsylvania. In the old State of Virginia, and in some other States, diplomas are no longer recognized as license to practice medicine, but are demanded as preliminary to the examination of the holder who is an applicant to practice in such States.

Now, with these powerful agencies of the law encouraging the efforts of able and earnest teachers in the regularly established medical colleges of this country, there is no danger that too many people will qualify to practice the art of healing. There are of course many commercial schools throughout the country pretending to give instruction in medicine. These are found in most every State, and the holders of their diplomas may be found in our cities, driving the street-cars, washing bottles in suburban drug stores, and in many cases pointing horseshoe nails, or gently guiding the brush

of paint over the cold brick walls of our houses. With the rapidly growing population of this country we have no excess of medical colleges, and there is, like Webster said to the student of law, always plenty of room in the higher walks of the profession. In the lower grades you shall gradually witness the decay that ignorance always suffers in the presence of scientific research.

In the increased length of term, and the higher standard of requirement adopted at this college, shall come an efficient means of reform in the better provision for instruction.

Do not understand me to say that the practice of medicine itself shall ever reach the dignified plane of an exact science. The uncertain tenure of life, and the varying degrees with which the vital forces operate in the economy, taken together with the varying conditions in which they operate, make it impossible; yet, by the aid of experimental study, the present generation has witnessed the discovery of the cause of nearly all the infectious contagia; and in their treatment the ounce of prevention may now wisely be ordered. For most of them the pound of cure has not yet been isolated. May we not hope that some one of these young gentlemen just admitted to the ranks of the profession this evening shall achieve this great goal for which we are all striving. May we not hope that, great as have been the giants in the medical profession in this metropolis, greater genius is now being bent into the same channels, and that the march toward perfection shall not be abandoned by a single one among them until the devotees of medicine shall be able to establish a universal science.

Fortunate are you, gentlemen, to have enjoyed the high privilege and distinguished honor of receiving your medical education in this noble institution; fortunate to have lived in this age of discovery, and deriving your first lessons at the centre, may you march through every inch of circumference to a brilliant and noble career.

SECOND CONGRESS OF FRENCH SURGEONS.

BY

MARCEL BAUDOUIN.

Translated from *Le Progrès Medical*, for PROGRESS, By

MRS. SALLIE E. MORRIS,
of Covington, Ky.

(CONTINUED.)

M. PEAN makes known the method which he employs in the practice of nephrectomy and nephrotomy. He cites the conclusions of the thesis of his interne, M. Brodeur, a very conscientious work. He prefers the lumbar way, and does not hesi-

tate to make a division when it is useful, and thinks that nephrotomy for flowing kidneys often suffice.

M. BOECKEL, of Strasbourg, recalls a case of hydatid cyst of the kidneys, for which he performed transperitoneal nephrectomy. This is the first time in practice this operation has been performed for such an affection. He has collected but seventeen cases of hydatid of the kidneys.

M. SEGOND, of Paris, communicated two cases of nephrectomy practiced, the one for a case of supposed hydronephrosis, the other for a flowing kidney, both having been followed by cure. This operation has as yet rarely been performed for these two affections (twenty-two times for flowing kidney, twenty-six times for hydronephrosis, Brodeur). In the first case he had to combat a terrible hemorrhage during the operation, notwithstanding a subcapsular operation. *Après* of the second—kidney flowing with a long pedicle—he remarked that flowing kidneys have not always long necks. M. Polaillon having said, that in these cases transperitoneal nephrectomy ought not to be performed, he believed he ought to state that he had found it well thus to operate. The utility of the nephronaphix for flowing kidneys did not seem to be demonstrated.

M. TRÉLAT, of Paris, has three nephrectomies for his share. To-day he wished to communicate to the meeting a certain number of reflections, suggested to him by his reading and by his personal experience.

[TO BE CONTINUED.]

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY.

DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

D. W. RAYMOND, BUSINESS MANAGER.

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THE SEASON FOR CONVENTIONS.

In the Southern States, and even in Ohio and Indiana, it

was long the custom to hold the meetings of the State Medical Societies early in the month of April.

In 1879, when it had been decided to make an attempt to celebrate in a public manner the erection of the monument to the memory of Ephraim McDowell, at Danville, it was thought best, inasmuch as the American Medical Association met the first Tuesday in May at Atlanta, to have the Kentucky State Medical Association meet just after that time, in order that many of the distinguished gentlemen from a distance who desired to be present at the McDowell ceremonies might, without serious loss of time, proceed at once to Danville on the adjournment of the American Medical Association. This proved to be the beginning of a series of changes in the date of meeting which has seriously crippled the usefulness of the Kentucky Society.

In April, 1881, it was decided to print no more of the transactions than related to the business of the Society, leaving out all questions of scientific interest; and the author of papers were permitted to publish them in any regular medical journal in the country. It was at this meeting likewise decided to hold the annual meetings permanently at Louisville.

In 1882 the meeting occurred the first week in April. It was largely attended by the very best element of the profession, and every one thought the new arrangement would prove of great advantage.

The arrangements for the next annual meeting (1883) were so unfortunate, that less than forty members attended during the entire session, which lasted two days. There was scarcely an item of scientific interest to be obtained from the whole proceedings. In 1884 the Society met at Bowling Green. The attendance was large—beyond expectation, and the proceedings, throughout, were creditable in the highest degree. From Bowling Green the Society went to Crab Orchard Springs. A change in the date of meeting was made to suit the season; the meeting was delightful in every way; and it appeared that June was, really, the best month in which to hold the annual meetings. In 1886 the meeting at Winchester occurred in June. It was delightful, and a representative gathering of the profession from every part of the State.

Unfortunately at that meeting it was resolved to hold the annual meeting in 1887 at Paducah. The time fixed was the 15th of June, allowing just sufficient time for those members who desire to attend the American Medical Association at Chicago to reach Paducah for the Kentucky Society meeting. As Paducah is more than two hundred miles from Louisville, it is not likely a large number of the profession here will feel inclined to give so much time to societies that early in the season.

The truth is that most of us must deny ourselves the privilege of attending the meeting of the State Society, or the meeting of the American Medical Association at Chicago. We hope those gentlemen who were so anxious to have the Society meet at the southwestern corner of the State will be able to add a sufficiently large number of new members to compensate for the falling off in attendance of those who have seldom been absent for twenty years before.

There never was before in the United States so much interest shown in medical organization as seems manifest at this time. The old societies have had large accessions to their membership, and many new ones have come into existence. Whether this is a natural growth of the disposition on the part of the profession to unite for better work, or perchance, the exhibition of a patriotic spirit to be organized and ready for the International Medical Congress at Washington, in September, it were difficult to determine. With the conflict as to time of meeting between the Kentucky Society and the National body, it is to be hoped that no serious impairment of the State Association may result.

It would seem more prudent, however, to return to the long-established season, or some other which is equally remote from the meeting of the American Medical Association. Let us consider the propriety of making a change of date at Paducah; meanwhile our State Society must not fail to send a large delegation to the American Medical Association, to the Mississippi Valley Medical Association, and to the International Medical Congress of 1887.

<p>THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.</p>	<p>The meeting at Crab Orchard Springs, July 13th, 14th, and 15th prox., promises to be the largest assembly of representative members of the medical profession ever held in Kentucky. It is important that every regular physician in the South and West should attend this meeting. Those desiring to read papers should send titles as soon as possible to the Secretary of the Society, or the Committee of Arrangements. The officers are: President, Isaac N. Love, M. D., St. Louis, Mo.; Vice Presidents, Joseph Robbins, M. D., Quincy, Ill.; Thomas B. Harvey, M. D., Indianapolis, Ind.; Jacob Geiger, M. D., St. Joseph, Mo.; Secretary, J. L. Gray, M. D., 1558 Wabash Avenue, Chicago,</p>
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Ill.; Assistant Secretary, Edward Alcorn, M. D., Houstonville, Lincoln County, Ky.; Treasurer, A. H. Ohmann-Dumesnil, M. D., St. Louis, Mo.; Committee of Arrangements, Dudley S. Reynolds, Chairman; Jos. M. Mathews, 580 Fourth Avenue, Secretary; Preston B. Scott, M. D., James M. Halloway, M. D., John A. Ouchterlony, M. D., all of Louisville; Louis S. McMurtry, M. D., Danville, Ky.; John Q. A. Stewart, M. D., Frankfort, Ky.; L. Beecher Todd, M. D., Lexington, Ky.; J. G. Brooks, M. D., Paducah, Ky.; James H. Letcher, M. D., Henderson, Ky.; Joseph N. McCormack, M. D., Bowling Green, Ky.; S. W. Willis, M. D., Winchester, Ky.; T. C. Evans, M. D., Flemingsburg, Ky.

The following resolutions were adopted at the last annual meeting:

“Resolved, That the Mississippi Valley Medical Association adopts as part of its organic law, and binding upon all its members, the Code of Ethics of the American Medical Association.

“Resolved, That we unite in one determined effort to make this Society second in size and importance to the American Medical Association only by inviting every member of the regular medical profession in good standing, in every State and Territory west of the Alleghany Mountains, to meet with us next year; and that we urge the importance of local society organizations throughout the country.”

The President of the Crab Orchard Springs Company, Major Wm. T. Grant, has arranged to accommodate all who honor the meeting by their presence at the very low rate of \$1.50 per day. The place is one of the most delightful summer resorts in the world, and there is every reason to believe a profitable and joyous meeting will be held.

<p>THE MEDICO- CHIRURGICAL COLLEGE.</p>	<p>The Medico-Chirurgical College, of Philadelphia, seems about to solve the problem of higher education. It has a graded course of three terms of six months each, and it seems to be appreciated by the profession.</p>
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The annual commencement on April 7,

1887, was a grand affair, participated in by more than three thousand of Philadelphia's best citizens. During the exercises of the evening, the degree of *Fellow of the Medico-Chirurgical College* was conferred upon Prof. Nathan S. Davis, of Chicago; Dr. W. S. Rushenberger, of the United States Navy; Prof. Dudley S. Reynolds, of Louisville, and Prof. Henry H. Smith, of Philadelphia.

Dudley S. Reynolds, of Louisville, addressed the Alumni Association on *the growth of medical education*, which we reprint from the *Medical Register*. (See page 499.)

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.

At Chicago, on Monday evening, the 6th of June, the Association will meet in annual session. Prof.

John V. Shoemaker, President, will deliver the annual address. He has chosen for his theme, "Some of the Present Abuses of Medical Literature." It is expected that this will be in many respects the most important meeting ever held by the Association. Every member of the medical press in the United States is expected to send his name at once to Dr. J. L. Gray, 1558 Wabash Avenue, Chicago, the Chairman of the Committee of Arrangements, and be present at the meeting. The Secretary, Dr. William Porter, one of the editors of the classical *St. Louis Weekly Review*, is Secretary of the Association, and would esteem it an honor to engage in correspondence with members of the medical press on the subject of the approaching meeting. Dr. Porter at this moment anxiously awaits communications at 3137 Lucas Ave., St. Louis. Exchanges have no right to copy this notice.

AN AFFLICTION.

The youngest son of the editor has been seriously ill for more than two weeks, requiring constant vigils by night and by day, so that no literary or other work has been possible in all that time.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

THE VIRGINIAS, to be seen at their best, should be traveled in the spring or early summer, when the foliage is fresh. The canyons of New River and attributes of the Alleghanies are thickly wooded and the leaf-covering is as lavish as the tints are varied. Poplar and oak, pine and sycamore intertwine their branches and render a symphony of color. An observation car, with sides of glass, is attached to the fast express trains of the Chesapeake & Ohio at Kanawha Falls, and an unobstructed view is given of the grandest scenery of the canyons and mountains. Kanawha Falls is the breakfast station, and one who tarries at the hotel there will be well repaid in sport with rod and reel. The route takes up the canyons of New River immediately after leaving Kanawha Falls, and does not leave the contracted space until the ascent of the Alleghanies begins. Natural Bridge and Luray Caverns are passed in rapid succession during the passage of the Alleghanies. The Blue Ridge is pierced by a tunnel near Af-ton and the broad Valley of the Piedmont stretches out as far as the eye can reach. The view of the valley is had from a height of a thousand feet as the train winds around the mountains. The Pullman services of the Chesapeake & Ohio will be perfect this season, and meals may be partaken of in elegantly upholstered cars while traveling through the canyons at the rate of forty miles an hour. Every one interested in beautiful scenery, summer resorts (and the climate of the Alleghanies is the most delightful in America), and new routes of travel, should address Mr. H. W. Fuller, General Passenger Agent, 225 Fourth Ave., Louisville, Ky., and obtain a pamphlet giving a full description of the scenery and resorts.

BADEN, N. ST. LOUIS, MO., Aug. 23, '87.
Messrs. Arthur Peter & Co., Louisville, Ky.:

GENTS—In November last, I asked for a sample of your "SYRUPUS ROBORANS," which you kindly forwarded. Ever since I have prescribed it with remarkable success in cases of "Bronchial Catarrh," "Convalescence of Pneumonia," etc., etc.

"Personally" I use one pint every three weeks in case of "Asthma Senile," and am very much pleased to say that I feel greatly benefited by its use, and would "personally" not be without it. Truly, etc.,

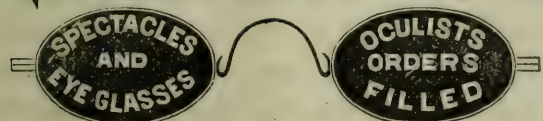
LEO DE LEUW, M. D.,
Formerly Sanitary Officer in St. Louis, Mo.

SUPPRESSED MENSTRUATION.—The Aletris Cordial, I think a most excellent remedy; and have used it in two cases of suppressed menstruation, in both of which with the best results. One of the patients is a young unmarried woman about thirty-seven years of age. Menstruations had been arrested for about eight months when she came under my care. She was much swollen, and suffered considerable pain at each monthly period, but there was nothing ever came away. I tried many of the usual remedies for such cases, iron, anti-spasmodics, and remedies for hysteria, and permanganate of potash, without any result. I put her on the Aletris Cordial, a teaspoonful three times a day. She had only taken of it for four days when I was called in to see my patient. I found her suffering slight pains, and ordered her feet to be bathed in hot water, with warm water formulations to the lower part of the bowels. On looking in, in the evening, I found her well; as her mother said, "she was better in half an hour after she had her feet bathed," the menstrual flow having then appeared. Since then, with the use of the Aletris Cordial for a day or two before the time, she has menstruated again, and seems as well as ever.

The other case was similar. I think that the Aletris Cordial is a most valuable remedy, and shall certainly use it in any case it may be indicated. Yours truly,

WM. BRYDEN, W. B. C. M. Ed.
2 Beaconsfield Terrace, Harwich, Scotland.
March 20, 1886.

QUEEN & CO. 924 CHEST. ST.



PHILADELPHIA, PA.

Vol. I, No. 10—37.

DENTAL DEPARTMENT.

CONDUCTED BY A. WILKES SMITH, M. D., D. D. S.

WOMEN IN DENTISTRY.

MRS. R. B. RAMSAY,
D.D.S.,

PITTSBURGH, PA.

[Items of Interest.]

It would be interesting to study the various causes that led men and women, in the industrial world, to drift apart, till each were strangers to the

other's work; and why, after the lapse of centuries, they are now uniting and working side by side.

Our imagination can date the dentist back to the primitive services of herbs and teas, hot salt, and hideous extractors, available to both sexes; but while the man advanced, secured the aid of science, established colleges to propagate learning, he pronounced his work a profession, and constituted himself sole possessor and proprietor of the field; the woman continued the domestic treatment, propagated the superstitious arts, and submitted to his usurpation.

But some revolt occurred, and to-day women are given the freedom of dental colleges in America with the accompanying legal right to practice, and this privilege is mainly due to the efforts of a few noble men. Of these let me mention Professors Peirce and Truman, who, with opinions far in advance of their time, stemmed the tide of opposition (of no mean proportion, but of intelligent men whose convictions were to them strong proof of right) and with a Spartan courage persisted till they secured for women an inestimable privilege. Some day, when the full freedom of women shall be assured, the efforts of those who struggled to produce it will be a part of history.

Admitting women legally to practice is a check on the pernicious custom of the widows of dentists continuing the business, using the name and rights of the deceased, hiring incompetent men to transact the business.

Have women a right in dental schools? It is true these colleges were founded by

men, and with money belonging to men, but some women bore these men, and some women helped earn this money; and since men have gone into domestic life for new avenues of labor, it is right that women should look to other fields for her life's work. But right or wrong, women dentists are an established fact; if every college door were closed against them, there are now women and money to start other schools.

But we do not anticipate a return to the old *regime*; for after a fair trial it is conceded that the presence of women in our colleges is beneficial to the young men; they show less disposition to rudeness, profanity, and indulgence in evil habits which unfit them for professional gentlemen.

The profession generally has accepted the woman gracefully, not as a necessary evil but as a power for good, knowing that the women who have joined their ranks are from a good social strata, and must eventually elevate the calling socially and professionally. Dental societies have given them a welcome and assigned them duties in public meetings. We should feel grateful to the profession for this privilege. At the door of Jefferson and the University of Pennsylvania she stands unnoticed, though holding her D.D.S. aloft and pointing to the arrangements made to admit this class on a third term, to receive the learning and benefits of M.D.

Are women an honor to the profession? Why should they not be? Those who have graduated have proved themselves apt pupils, entering the profession with an earnest endeavor to do her best. This is sure to bring esteem and success. Women are peculiarly adapted for the care, patience, and delicate touch required in dental manipulations. The general public accepts the services of women. This is proven by the success of those following the business. That the women have not more fully availed themselves of the privileges is the result of long years of training called "womanly;" but this is a misnomer, for the world is ceas-

ing to value a condition that in adversity means poverty and dependence. But women are awakening. In the Pennsylvania Dental College there are nine women enrolled this term as students. In the Philadelphia Dental College twenty-six have been graduated in the past, and in the present class there are seven enrolled and two or three others attending occasionally. The Baltimore College graduated three women and then refused further admission, nor will they to-day admit women as students. How manly.

Two of these thirty-two women graduates came from Germany, at a great expense, with attending sacrifices of leaving home and sojourning alone in a strange country. They spent the time required by our colleges, and are welcomed home with greetings of honor and respect. They practice their art proud in the title of "American Dentist;" for thus they are styled by way of honorable mention, and a dentist there ranks above a physician in social caste.

The presence of women in the dental profession is one more star in the escutcheon of a profession that has advanced more rapidly from its birth than any other. Dentists have seemed to agree that nothing is impossible; prejudice has nowhere an abiding place. They are willing to cast out old ideas and accept new theories, put them to test, and if good, assign them a place in the dental curriculum. Even so have they accepted women. They have extended to her the right hand of fellowship and given her a place in the front ranks.

Tell me the position of women in a nation and I will tell you the status history of that nation. The more intelligent and honored the women, the more highly civilized the nation. An ignorant and oppressed race of women are incapable of producing a race of civilized men. Women must be given her God-given privileges or the nation retrogrades. The next century will dawn on a glorious state of unity, and surely the women will be there.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN-
TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND
ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES-
SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF,
AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT
MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE
SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION
AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., MAY, 1887.

NO. II.

GENERAL MEDICINE.

INTESTINAL

WORMS.

BY WM. B. ATKINSON,
A. M., M. D.

*Professor of Sanitary Sci-
ence and of Pædiatrics.*

A Lecture delivered at the
Medico-Chirurgical Col-
lege of Philadelphia.

[Reported for PROGRESS.]

Gentlemen, I shall to-day fulfill my promise to say something to you on the subject of worms. The presence of parasites in the alimentary tract of children has been regarded, even by the medi-

cal profession, until lately as a powerful cause of disease. I have taken the trouble to look over some of the older writers on this subject, and it is marvelous how even medical men a few years ago regarded worms as the cause of many obscure conditions; just as at the present day many obscure conditions are attributed to malaria. Almost equally with the teeth, worms are looked upon as producing a variety of disorders, some of which speedily eventuate in death. In our clinics, you have heard many diverse symptoms ascribed to the irritation of worms. Of late years the profession has to a great degree become emancipate from the idea that worms are the cause of so much trouble, and have learned to attribute more to improper food, want of cleanliness, and bad hygiene. One reason why this view has not been sooner accepted is, that it is only a short time since the diseases of children have been accorded their proper position. Let us look into the facts and see what is really known upon this subject. By such means we may save our little patient

much suffering, and unnecessary and wrong medication, and ourselves from the shame of ignorance.

These parasites have been carefully studied by naturalists, who find that there are a large number which infest the intestinal canal. Many of these are microscopic. There are five varieties which are of importance to us in the present investigation. Three of these possess an alimentary tube, and are known as hollow worms. Two have no alimentary canal, and are called solid worms. In the first class we have the trichocephalus dispar, whip or long thread worm, which is usually found in the cecum and large intestine, more rarely in the ileum and even in the vermiform appendix. It is about two inches long, with a slender, whip-like body. This may be numerously represented in the intestines without causing characteristic symptoms. In many cases where a post-mortem has been made for other purposes, this parasite is found. It is not so common in children as some of the other varieties, and by many it is doubted if it has any material influence upon the system.

The ascaris lumbricoides is usually found in the small intestines of poorly-fed children, between the ages of three and twelve years. Occasionally it ascends to the stomach and is vomited. Cases have occurred where these worms have been drawn out of the throat by the patient, who has been partially strangled by their movements in the oesophagus. It resembles an earth worm in appearance,

being from six to nine inches in length, and of a dirty yellow color. By its ability to get into the œsophagus, it sometimes produces nervousness and irritating cough, and may lead to the occurrence of epistaxis.

The *ascaris vermiculiars*, or *oxyuris*, small thread worm, seat worm, inhabits the rectum or sigmoid flexure almost entirely. It resembles masses of small pieces of thread, one quarter of an inch in length. It is extremely common to find it in large masses in children. Under favorable conditions the worm develops rapidly. When the patient strains, the worms are expelled and this straining is often caused by the presence of the parasite. From the rectum the worms frequently make their way into the vagina, giving rise to a peculiar train of symptoms. On examination the worms will be frequently found around the anus.

In the second class we have *tænia solium*, or the long tape worm, so called because it resembles a long, flat piece of tape. The eggs of this worm are eaten by the herbivorous and other animals. While retained in the animal they develop the *cysticereus cellulosus*, and from these are developed the *tænia*. This variety is found in the small intestine of children generally over the age of three years. It is rare to find in very young children the tape worm, or in fact any other worm except the seat worm. Occasionally instances are recorded in which children have passed large quantities of worms. A French writer relates a case of a child at the breast, not more than three months old, who passed sixty-five feet of tape worm. The *tænia solium* has a small, flat head and may be from five to thirty feet in length. The head has in its center a projecting papilla, armed with a double circle of hooks, around which are three or four suckers, by which the worm is nourished. As each segment is supplied with a generative apparatus, it can readily be seen that the race is easily preserved. Large portions of the worm may be lost, but so long as the head is retained, the segments will be

reproduced. We also have the *tænia medio-cancellata* and the *bothriocephalus latus*, or broad tape worm. In the latter the width of the segments is twice their length, and it is the largest of these worms. It reaches a length of twenty-five or more feet, and there may be three or four thousand joints of segments. All forms of tape worms are very fertile, and under proper conditions rapidly reproduce their kind. Time will not permit me to give a more extended account of the natural history of these parasites.

The causes of these pests are various. In the first place all these worms are produced from eggs, which are believed to be taken into the system by means of impure food, by impure drinking water, by meats, by fish, and even by fruits, and by vegetables. You will find that children living in certain localities are more liable to be affected by worms than those living elsewhere. Some authorities, especially the French and German, state that they have frequently seen the eggs upon the fingers and under the nails of children in certain neighborhoods. This can be readily understood when you remember that the child, in scratching around the anus, can easily get the eggs upon its fingers. Filth, and carelessness in washing young children, is one of the predisposing causes of worms. A low state of the system, as from fevers, or from exhausting affections, or from chronic forms of disorder of the alimentary canal, may favor the development of these parasites. Where the child is allowed to eat all sorts of trash it is only wonderful that they are not more apt to suffer from the presence of worms.

The symptoms incident to worms are those which are local, which refer to the habitat, and those which are sympathetic or reflex. There may be derangement of the stomach and bowels, with a tendency to diarrhea or dysentery, with the passage of an offensive mass with slimy mucous. When such dejections are due to worms, we should find the parasites in the mass passed. In some severe cases vomiting occurs. Some

authors claim as a special indication of the presence of worms, a slightly coated tongue, with particularly distinct fungi-form papilla. The French writers especially claim that this is a verminous tongue. The skin has a muddy or dirty appearance. There are dark semicircles beneath the eyes, and the pupils are widely dilated as a general rule; sometimes they are irregularly dilated. The abdomen is swollen and hard, the appetite capricious; it may be lost, or ravenous, or depraved. Sometimes the child will desire to eat all the time. It will devour a full meal, and you will see no good results, and in a short time it will be eating again. In many instances this is due to the irritation produced by the presence of worms. The child is restless and irritable, especially at night; it groans, grinds its teeth, screams out, has night terrors, picks at the anus, and sometimes is constantly boring into the nostril with the finger. There is usually a frequent desire to defecate. In one instance a little girl, while being otherwise very cleanly, was continually with one finger in the nostril. I at first thought that this was simply a bad habit, but when the mother told me that the child would often have a desire to defecate, I had the bowels syringed with cold water. This brought away a large mass of thread worms. There is often in these cases a sharp, short cough and hiccough. You will often find that children, and even adults, will have a peculiar hysterical cough, which is due to the irritation of worms. There are nervous movements which may become choræic, and, in nervous children, convulsions may occur. Emaciation soon takes place, the child has a white and pasty look, and is sick and out of health. You will often meet with cases of children who are weak, and evidently out of health, but in whom you can find nothing to explain the condition, but when a more careful examination is made it may be found that the whole trouble is due to the presence of worms, and almost invariably to the irritation produced by thread worms in the rectum.

Special symptoms are attributed to the different varieties of worms. The presence of ascarides is said to be shown by a pale, leaden color of the face and dark blue semicircles beneath the lower eyelid. The nostrils are swollen. The child picks at its nose. There may be nasal hemorrhage, or nausea and vomiting, and the appetite is lost or ravenous. The breath is acid or fetid, and the saliva flows from the mouth. I believe more in the value of fetid breath as a symptom of irritation of the alimentary canal by worms than I do in any of the other symptoms mentioned. When a child is given a plain and appropriate diet and has this peculiar and offensive breath, it is very significant. A child in health should not have a bad breath. The pulse is irregular, generally much quickened, and the temperature is elevated. This is what is called worm fever, of which many speak. Bouchut asserts that lumbricoid worms may produce obstruction of the bowels and cause symptoms of strangulation. Such cases are on record, but I think their number does not exceed one or two. Cases occasionally occur which exhibit a peculiar form of night blindness which has disappeared after the expulsion of the worms. These are special cases and belong among the idiosyncrasies. Dyspnea may be produced by the presence of a worm in the upper part of the œsophagus. Abdominal pains like those of colic, especially around the umbilicus, may occur from the presence of worms. The oxyuris, or thread worm, by its presence in the rectum, frequently produces great annoyance, and in females frequently gives rise to pruritus pudendi. In children there is great irritation, both of the anus and pudendum, and on examination it will be noted that the little thread worms have passed into the vulva and vagina. These symptoms are present at all times, but are more noticeable at night, and greatly disturb the child's sleep. Such symptoms have sometimes been attributed to a periodical form of disease, and treatment by qui-

nine has been instituted. The migration of the worms into the vulva may induce such irritation as to lead to leucorrhœa. Rarely this leucorrhœal discharge may be stained with the blood. It is extremely probable that some of the cases of supposed menstruation in very young children have arisen from such a condition. I have had more than once cases brought to my clinic where children were said to have menstruated at the age of from two to four years, but in no case have I been able to satisfy myself that such was the condition. In many instances it is the result of injury of which the child is afraid to speak, or of irritation of the parts from parasites. The presence of these worms is believed to be an exciting cause of masturbation in both sexes. When attention is called to this matter the presence of worms should be considered. We continually see young babies who suffer from prurism from the presence of these worms.

Tape worms, although not so frequently found in children as the other varieties, are sometimes present, and may fail to give rise to any symptoms attributable to them. Their presence will be suspected when there is disturbed digestion, accompanied by the symptoms which I have mentioned. Thus you will find an irregular condition of the pulse, with frequent attacks of abdominal pain without apparent cause, all of which are markedly relieved by the ingestion of a full meal. Some observers speak of giddiness, blindness, ringing in the ears, deafness, and other nervous symptoms as caused by tape worms, all of which have disappeared after the expulsion of the worm. Cases are detailed where in spite of the ravenous appetite the child gradually grew thinner until it became a mere skeleton, and where the exhibition of a remedy removed a large quantity of tape worm and was followed by a rapid disappearance of all the symptoms. In several instances, I have been consulted with reference to such cases, and when I have suggested the pres-

ence of tape worm the attending physician has not been willing to accept this view of the case, because it is rare for children to have tape worm. Still in these cases the exhibition of a remedy has brought away the worm and relieved the symptoms. There is no reason why a child without some disease which could be readily diagnosed should have a ravenous appetite and yet be continually losing flesh and becoming pale and weak, unless there is something producing an irritating effect in the alimentary canal.

Perforation of the wall of the intestine has been claimed to have been produced by these parasites, but the best observers do not regard this as probable. These worms have no apparatus by which they can make an opening through a healthy mucous membrane. Where in post-mortem examinations worms have been found occupying the cavity of the peritoneum, they have undoubtedly passed through an opening caused by disease. I have seen instances where worms have passed into the peritoneal cavity, and I have even seen them in the opening in the bowel. Cases have been reported where worms have been found between the coats of the intestine. Bouchut reports a case in which half a dozen lumbrici had dissected their way between the coats of the bowel. This child had been suffering for some time with a broken down condition, which might cause such a state of the bowel that the worms could insert their heads between the mucous membrane and the outer coats and thus work their way into the intestinal wall. It is probable that in all such instances there has been previous disease which has softened the mucous coat of the bowel.

In passing, it may be said that many other symptoms have been attributed to the presence of worms. Some of them I will briefly mention. Intestinal hemorrhage, intestinal strangulation, and inflammation of the intestines have been said to be due to the presence of worms. It is claimed that worms have made their way into the liver,

into the nasal passages, into the frontal sinuses, into the ear, into the urethra, and into the air passages. Again, amaurosis, catalepsy, convulsions, and chorea have been regarded as due to worms in the alimentary tract. Some authors profess to believe in the verminous chachexia, but I think that there is nothing in that.

In regard to the diagnosis of the presence of worms the symptoms which I have enumerated are frequently connected with entirely different affections, hence the only positive assurance that worms are occupying the intestinal canal, is the passage of worms. By means of the microscope we may be able to find the eggs in the dejections, from which it could be safely concluded that worms were present. Where this condition is suspected a careful examination of every passage should be made. This is not always an easy matter, for a great number of even small children are allowed to use the closet some distance from the house, and the marvel has been with me that more of them have not been injured by falling into the filth below. A mild but positive purge may be given, and rarely will this fail to bring away some of the parasites. The presence of seat worms is usually indicated by the intolerable itching, and the worms are found on examination. The exhibition of santonin or the fluid extract of spigelia and senna will often be followed by relief, even where no worms are detected. I have observed this quite frequently. Dr. Condie alludes to this.

We next come to a consideration of the treatment. Perhaps no affection has given rise to so much improper treatment as the supposed presence of worms. A child who is out of sorts and presents some peculiar symptoms, which are attributed to worms, becomes the victim of a variety of treatment at the hands of all to whom the condition is mentioned. Let me urge you never to join in this hue and cry, but diagnose for yourself and forbid all forms of medication except that which you may deem

advisable. Many children have been injured by this indiscriminate medication. Where the presence of worms is suspected, a purge of calomel or rhubarb may be given. If any worms are present this will be apt to bring them away. I shall give you the special remedies which I have found serviceable for the relief of this condition. Pink-root or spigelia is an anthelmintic which I have found of great value. You want nothing better. I employ the fluid extract of spigelia and senna with the best results, and used in this combination I have not seen any of the unpleasant symptoms which are attributed to pink-root alone. For a child six or eight years of age, a teaspoonful may be given three times a day; to this may be added sentonin in doses of one half to one grain. Many object to this as a small dose; still I get good results from it. English authorities recommend from two to four grains, while the French and German authorities employ from one to three grains. It is better to begin with a small dose and increase it if necessary. A formula recommended by Dr. Proctor, of this city, consists of one drachm of the fluid extract of spigelia and senna with one grain of santonin, repeated two or three times daily for a child from six to ten years of age. The santonin may be given by itself and is usually followed by castor oil, citrate of magnesia, calomel, or rhubarb. All of these remedies should be given on an empty stomach, as this favors the action of the remedy on the worm. An old and useful drug is oleum chenopodii, or worm sea-oil. Dr. Meigs used to say that in these cases worm sea-oil was all you wanted; you could get nothing better and you needed nothing more. It may be given in doses of five drops three times a day in emulsion. This is continued three or four days, then stopped and followed by purgatives and repeated if necessary. Marked improvement is often found even when worms are not passed. It seems to act as a tonic to the mucous membrane of the intestinal tract.

Another favorite remedy is oil of turpentine. It has long been used for this purpose. Where the parasites are accompanied by profuse mucous discharges, if given with mucilage and syrup, the oil is easily taken. The dose should be about five drops three or four times a day, to a child aged five years, and increased cautiously. It must not be forgotten that shanguery may occur from this remedy. Some authorities urge its use in fifteen to thirty drops, three times a day. Evanson and Marensell prescribe it in half drachm to drachm doses, or administer it in milk. Other remedies are mentioned, but as possessing no advantages beyond those quoted.

For seat worms, some of the above remedies should be internally administered to tone up the system, and in addition, as shown in the clinics, enemata of strong lime, oil of turpentine, lime water, also sulphate of iron, or the tincture, etc. Some prefer the passage of a bougie, smeared with strong mercurial ointment. The lecturer mentioned a number of useful formulæ, and closed this half of his lecture by suggesting, as very useful, such mild remedies as copious drafts of water with satrils; enemata of garlic or assafœtida \mathfrak{D} ij in milk \mathfrak{Z} iv; or castile soap, and these repeated nightly.

In cases of *tape* worm, the head must be expelled before the cure is effected. The patient should be prepared for thirty-six or forty-eight hours by mild purges, little or such as leaves no residuum, as beef tea, milk, etc. Garlic, onions, and salt fish are believed to sicken the parasite, and are often used. The best medicine is the oil of neale from in doses of thirty to sixty drops of the liquid extract given in mucilage, the patient fasting. Other remedies are kousso, petroleum, kamela, etc.

For the leuchorrhœa, use injections of cold water, or a mild astringent.

Finally, in all cases, keep the bowels soft and free, at least once a day, and employ tonics to build up the general health.

MALIGNANT ENDOCARDITIS.

REPORT OF TWO CASES.

BY

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[Read to the College of Physicians of Philadelphia, March 2, 1887.]

Both the cases included in this report have been named malignant endocarditis, although one of them is without the warrant of a microscopical examination. The clinical course and microscopical appearances indicate such to have been its true nature, however. I venture to bring it before you thus labelled, to excite criticism, if necessary, and to ask your attention to one of the manifold phases of this interesting disease.

The case was under the observation of Dr. J. Henry Musser, of Lancaster County, and seen by my father, Dr. Benjamin Musser, in consultation. It occurred in their practice, 1878. I recall the case both from conversations and letters concerning it at the time. Unfortunately, the notes of the case in Dr. Musser's possession have been mislaid. His memory and memoranda in his case-book feebly supply the deficiency; fortunately, we have the morbid specimens.

CASE I. *Rheumatism; embolism of large vessels; cardiac murmurs; gangrene; chills and fever; death. Autopsy: vegetations on mitral leaflets; emboli in brachial and femoral arteries.*—H. R., male, aged twenty-three, laborer, consulted Dr. J. Henry Musser, June 25th, on account of rheumatism. He was visited by his physician the first week in July once, the second week four times, and the third twice. On the first of August grave symptoms set in, and on the third of September he died. It will be observed, therefore, that, in July, H. R. was not very ill; in fact, he continued at light work on his farm, and on the first of August was in the harvest field when the first embolus manifested itself. During that month he had rheumatism, and, for a short time before August 1st, chills and fever.

August 1. Sudden severe pain occurred in the right brachial artery. Could not be

removed to his house at once on account of collapse. Dr. Musser saw him, and found the pulse absent at the wrist, the hand cold and cyanosed. Two days subsequently the femoral artery became plugged, much pain being occasioned at the time. The circulation in neither arm nor leg was ever restored, and gangrene ensued. Attention was at once called to the heart, and a distinct systolic murmur was heard at base and apex. During the month an irregular fever, with irregularly recurring chills, was present. Death took place from exhaustion, September 3d, thirty-three days after serious symptoms set in.

At the autopsy the vessels were plugged with emboli and thrombi, as exhibited in the specimens. The heart was enlarged by dilatation, and on the posterior cusp of the mitral valve soft fungating vegetations grew. Some of the chordæ tendineæ were surrounded by vegetations. The auricular surface of one cusp was rough, and minute ulcers were present. Fibrin clung to the vegetations, and recent clots filled the cavities. The aortic valve and the right heart were normal. There was no atheroma.

REMARKS.—Without doubt, in this instance, malignant endocarditis was associated with rheumatism, and the type was essentially pyemic. One might presume, however, that the so-called primary rheumatic symptoms were pyemic in nature, or that the cardiac lesions supervened secondarily to the gangrene. The teachings of the autopsy do not sustain either supposition. The absence of old cardiac and vascular lesions, and the general integrity of the organs, preclude the possibility of pyemia. The normal condition of the arteries (absence of atheroma), the absence of primary blood dyscrasie, or of any cause, save cardiac, for the emboli, defeat the second supposition.

CASE II. *Malignant endocarditis; chills, irregular fever, sweats; cardiac murmur and pain; vomiting and diarrhea; marked embolic phenomena; jaundice; death. Autopsy: pro-*

liferative bacterial endocarditis confined to the mitral valve; emboli of skin, mucous membrane of mouth, of stomach, and of intestines, of spleen, kidneys, peritoneum and endocardium; embolus and thrombus in left iliac vein. M. S., female, aged twenty-seven, white, German, married, admitted to Philadelphia Hospital August 26, 1886. At the same time her husband and children were admitted for a febrile complaint, thought to be of malarial origin. M. S. had been ill about six weeks, of an irregular fever, also said to be malarial. At this time she was nursing an infant which had been born one year before. The labor was natural, and she had a good getting up. Since birth of child M. S. has not menstruated. Three years previous to this illness she had an attack of malarial fever, and at one time had rheumatism of the leg. She never had any other ailment, was strong and hearty, and of temperate habits.

The family history of M. S. is very good. Her parents and several brothers and sisters are living. One sister died of pneumonia; the cause of death of another is unknown. On admission it was noted that the patient was prostrated and complained of chilly sensations, she sweated profusely, and suffered from nausea. The tongue was clean and moist; the bowels loose, five movements in twenty-four hours, thin and greenish in color; the nausea had disappeared in twelve hours; tenderness of the epigastrium was observed, but none in the iliac fosse. The spleen extended, in the axillary line, from the sixth rib to the margin of the ribs. There was no eruption. Both cheeks were flushed. The skin and mucous membranes were pale, the hands quite anemic. She was somewhat emaciated. The mind was clear. The lungs and heart were normal; the latter rapid in action, and rather feeble. Milk diet, stimulants, and quinia ordered.

September 2. My resident, Dr. Dorland, detected a cardiac murmur two days ago, and to-day the following is noted: General symptoms and appearances about the same.

Apex beat of heart in fifth inter-space in nipple line; impulse moderately feeble; no thrill; pulmonary second sound accentuated; high-pitched systolic murmur at apex transmitted to axilla: no murmur at aortic orifice. Pulse rapid, small, and feeble. No cough; no dyspnea. Ulcerative endocarditis suspected.

8. The fever has continued in spite of quinine. The patient sweats profusely throughout the day, but not at night. Her anemic appearance is striking. She is quite cheerful, but is evidently losing flesh and strength. The diarrhea continues. The cardiac murmur has increased in intensity during the past forty-eight hours, and can be heard loudly at the angle of both scapulæ, louder at the right. Marked tenderness on pressure, and some pain complained of in the third left intercostal space. At the base of the right lung impaired resonance, and fine, moist, crepitant râles are observed. A few râles are heard at the right apex also. Short, high-pitched, jerking inspiration and prolonged expiration is detected at the right apex, and high-pitched inspiration at the left.

12. Two days ago two small purpuric spots were observed on each upper eyelid, and to-day hemorrhagic infarcts are seen all over the trunk and on the upper extremities, pin-head to split-pea in size, bright red, not disappearing on pressure. Hemorrhages in the ocular and palpebral conjunctivæ of both eyes at inner and outer canthus. Rapidly losing flesh and strength. Sweats continue. Abdomen distended in epigastric and umbilical regions; large wavy impulse in epigastrium. Nausea and vomiting recurred the past five days; fluid dark, greenish tinge. The vomiting occurs in the morning. Diarrhea continues. Spleen readily felt below the margin of the ribs, tender. Lungs have cleared up. No cerebral symptoms. Heart's action irregular. Pulse small, feeble, rapid, dicrotic. Tenderness behind the sternum. Impulse (systolic) in second, third, and fourth left interspaces. In second

interspace to the left of sternum very perceptible thrill. Systolic murmur not so loud as it has been at apex. Over third rib, left auricle, loud, booming systole, with "grinding" murmur. In second interspace to the left of the sternum loud, rough, high-pitched murmur. Pulmonary second sound muffled. Murmur over tricuspid not so distinct as at mitral, and probably transmitted; aortic murmur low in pitch, conducted from base. No edema. Mind clear.

13. Physical signs as above. Cardiac dullness extends from the left edge of the sternum one inch to the left in the second interspace. It extends in the third interspace two inches, and in the fourth three inches. Apex beat in nipple line. Intensity of murmur greatest in second interspace. Chill this morning. Urine scanty and high-colored, and contains blood and epithelial tube casts in abundance, and a small amount of albumin. General symptoms the same. Extreme prostration.

14. Chill at 7 A. M. A little more drowsy than formerly; no delirium. Murmur in second interspace not so distinct. New capillary infarcts in abundance about the neck. Vomiting and diarrhea continue. Infarcts in lips and on end of tongue. Conjunctivæ slightly icteric. Dyspnea severe for half an hour at 2 P. M. Partially collapsed state, with gasping and sighing; excessively rapid pulse; stimulants relieved the patient. At 11 P. M. a second attack. During the day very irritable, and latter part of day drowsy. Died at 2 A. M., September 15th.

The following record indicates the daily fluctuations in temperature. The pulse record was not preserved, but from first to last it was rapid, 120 to 130 per minute.

Aug. 25, P. M., 99.3°. 26th, A. M., 100.4°; P. M., 103.2°. 27th, A. M., 101.1°; P. M., 103°. 28th, A. M., 101.1°; P. M., 101.3°. 29th, A. M., 102.1°; P. M., 102.3°. 30th, A. M., 103°; P. M., 100.4°. 31st, A. M., 100.1°; P. M., 101°.

Sept. 1, A. M., 102°; P. M., 101.2°. 2d.,

A. M., 102.1°; P. M., 102.3°. 3d, A. M., 102.4°; P. M., 99°. 4th, A. M., 99°; P. M., 101.4°. 5th, A. M., 101.2°; P. M., 105°. 6th, A. M., 99.2°; P. M., 105°. 7th, A. M., 101.1°; P. M., 97°. 8th, A. M., 97.2°; P. M., 99.3°. 9th, A. M., 101.2°; P. M., 105°. 10th, A. M., 105.4°; P. M., 99.2° (chill at 6:30 A. M., and 9.00 A. M., temperature taken). 11th, A. M., 101.3°; P. M., 99.3°. 12th, A. M., 101.4°; P. M., 99.3° (chill, 7:30). 13th, A. M., 102.3°; P. M., 102°. 14th, A. M., 100.2°; P. M., 100.4°. 15th, A. M., 99.2°.

During the course of her illness careful search was made for localized purulent inflammation. The pelvic organs were normal, the bones were evidently free from disease, and inflammation of the middle ear was not detected.

AUTOPSY (by Prof. Osler, Dr. Musser, and Dr. Dorlan). — *General appearance*: Medium sized body, somewhat emaciated. Skin pale, slightly icteric. Numerous petechiæ cover the face, chest, and arms; very numerous on right arm and wrist. Petechiæ range in size from a pin's head to a split-pea, and vary slightly in color from vivid red to dark blue; one or two only present central yellowish core.

Abdomen, thorax: Numerous petechiæ on parietal peritoneum. Slight serous effusion in both pleural sacs; few adhesions at right base; some petechiæ in parietal pleura.

Pericardium, heart: Excess of pericardial fluid, numerous small petechiæ on visceral layer. Right chamber relaxed, containing fluid blood and small clot. Left ventricle, tolerably firm dark clot. Apex of the left auricle is long, and can be seen turning to base of pulmonary artery. Before removal of heart, fingers in pulmonary vein and pulmonary artery, both of which are free. Further dissection of heart: right auricle, little blood, staining of endocardium; a few petechiæ. Right ventricle, chamber large; tricuspid segments a little thickened; a distinct nodular thickening at angle of anterior and internal cusps. Pulmonary semilunar

valve normal. Left auricle dilated. Seen from above, mitral orifice plugged by loose black clot and large grayish-white vegetations. After removal of auricle, the following conditions of valve appear: from base of posterior cusp of mitral, large irregular gray-yellow vegetations one inch in length extend into the auricle, passing out at right angles to the mitral ring, and forming a sort of valve across the orifice. Entire auricular surface of this cusp covered with vegetations. Anterior cusp at free edge, a large warty vegetation projecting into ventricle three fourths of an inch. The anterior part of this cusp is free. One or two of the chordæ tendineæ are encircled with vegetations. No involvement of endocardium, other than that of valves. Aortic cusps normal. So-called unprotected space below aortic ring presents deep depression, is closed, and to its base is attached a nodular thickening at angle of tricuspid cusps. Muscle substance of heart is pale, looks fatty; numerous ecchymoses. Coronary arteries free.

Lungs crepitant; ecchymoses on pleura. No infarcts. Bases edematous, somewhat congested. Pulmonary artery normal.

Spleen weighs one pound five ounces, soft, capsule closely adherent at one spot. Pulp soft, reddish-brown; four large infarcts of some age, yellowish; others recent, none suppurating.

Kidneys somewhat enlarged. Capsule free, surface irregular. Numerous recent infarcts. Unusual amount of pigment. Right kidney, same changes; not so many large infarcts; the pigmentary changes about many of these infarcts are peculiar.

Pancreas: Few interlobular hemorrhages.

Stomach: Numerous ecchymoses. Many with small, central grayish spots. Mucosa about cardiac end much reddened.

Duodenum: Bile duct pervious; in mucous membrane small, superficial ecchymoses.

Small intestine: One or two small infarcts in jejunum. Toward valve the ileum was

much injected, and the small infarcts were numerous.

Large intestines: Cecum deeply injected; throughout the colon they are numerous, in size from two to ten millimetres. Some of larger show distinct nodular prominence, which on dissection is grayish-red, firm.

Liver: A little enlarged. No extravasations; tissue soft and light brown. No infarcts. Weight five pounds and four ounces.

Uterus: Medium size. Os shows deep lateral laceration. Mucous membrane deeply pigmented. Muscle substance normal. Ovaries normal. Small cyst in broad ligament. Pelvic veins are normal. No trace of chronic inflammation about broad ligament. No thrombosis of veins.

Bladder: Few ecchymoses.

In the common iliac artery a plug is seen extending into the external iliac as far as the femoral; in the internal iliac it extends for two inches. On slitting up artery the thrombus is closely adherent, and at bifurcation it has softened, and has a purulent (?) appearance. Clot in internal iliac is one and a half inches long at least. Much pigmentation about the internal coats of the artery. No evidence of any local disease. Brain, spinal cord, eyes, and ears not examined.

Microscopical examination of the fresh clot in the artery, and the vegetation on the valve, by Dr. Griffiths, revealed the micrococci common to ulcerative endocarditis, the *staphylococcus pyogenes aureus*.

Sections of the organs after hardening were made for me by Dr. William Gray. He reports as follows:

Heart: Fatty degeneration of the muscular fibre, with almost entire obliteration of striæ; increase of the interfibrillar connective tissue, and decided increase of the nuclear elements.

Spleen: Extensive cirrhosis; obliteration of the cellular elements by fatty degeneration and an abundance of blood crystals (section from an infarct) are seen.

Kidney: Increase of intertubular connective tissue and tissue of Bowman's capsule.

Proliferation of epithelial cells lining capsules and tubes. Cells degenerated and lumen of tubes plugged with casts. Section of infarct shows blood infiltrating into the tubules and between connective tissue fibres.

Intestines: Increase of connective tissue in submucous layer and of adenoid tissue of villi; extensive lymphoid infiltration into mucous layer, villi, and glands of Lieberkühn. Granular degeneration of cells of villi. Infarct between and into submucous and muscular coat, blood crystals in infarct.

Artery: Entire absence of intima, with thickening of middle coat, and infiltration of blood into media.

Unfortunately, Dr. Gray did not get any of the proliferated mass on the valves. Dr. Gray was unable to find micrococci in the sections he had cut. They were given him without proper labelling, so that he did not know the tissue he was cutting. While this is to be regretted, it is enough to learn from the early and late examinations of Dr. Griffiths, that bacteria were present. Dr. Griffiths readily found in the fresh treated preparations that micrococci abounded in the granular matter, and about the leucocytes of the vegetation.

The lesions otherwise found were myocarditis, glomerulo-nephritis, and gastro-enteritis, with the usual histological changes about an infarct.

REMARKS. So many thoughts arise in the contemplation of a case that represents so complete an evolution of a morbid process that one is tempted to indulge in lengthy remarks. We shall limit ourselves, however, and so be content with calling your attention to one or two prominent features.

Diagnosis. Observe, if you please, in the first place, the perfect picture of malignant endocarditis presented by the case. There was not a moment after the manifestations of the heart lesions were studied that the diagnosis of endocarditis was doubted. It is true that before the cardiac murmur had been detected we could only say we had to

do with a septic process. Who would say otherwise in a case of a young person with irregular fever, profuse sweats, and extreme exhaustion; with vomiting and diarrhea, and enlargement of the spleen; with an acute inflammation of the kidneys without dropsy; with the physical signs of endocardial inflammation; and with the most pronounced appearance of capillary hemorrhages in the skin and mucous membranes, terminating in suffusion of the skin, conjunctivæ, and mucous membranes, with the mild but ominous hue of icterus? It is true we considered at first whether, from the history and association with similar affections, the case was one of malarial origin. The use of quinia without result, the irregularity of the fever, the frequent pulse, the extreme sweats, and the diarrhea, led us to abandon this idea. Typhoid fever was rightly thought of, but momentarily. The spots, the tympany, and the characteristic stools were wanting; no approach to the typhoid state was observed in spite of the high fever and rapid pulse; the peculiar features of the tongue were absent, and at no time were the faculties dull or the mind wandering. The physical signs observed in the lungs, the profuse sweats, the quick pulse, and the diarrhea, naturally induced the question of tuberculosis to arise. The disappearance of the lung affection, the absence of hurried respiration, and of the tubercle bacilli in the discharges, were sufficient counterproofs.

Thus, by exclusion and by a careful study of the disease as it was gradually unfolded to us, we were enabled to make a diagnosis. In this, as in many instances, unfortunately, with waiting and watching, too soon the true nature of the affection was so legibly written that he who ran could read.

Class. As far as can be ascertained, the affection was idiopathic—using the term with the modern reservation. That is, a cause can not be ascertained for the development of the disease in this case unless the slight rheumatic attack years previously

is sufficient to attach the diathesis as cause and effect.

Type. Recall for a moment the marked symptoms present. The fever, the chills, and the sweats, the clear intellect, the gastric and intestinal disturbances, clearly group the case with other examples of malignant endocarditis of the pyemic type.

Special symptoms. Enough has been said of the symptoms in the history of the case. Your attention need not be called again to the vivid temperature range, the recurring chills, the grave renal symptoms, and the pronounced capillary hemorrhages. The latter were striking—at first but a few, each day more and more appearing; confined not only to the skin, but seen in the lips and tongue and the conjunctivæ, they presented a glaring picture of the pathological process. The anæmia, which was barely noted, deserves a remark. It was profound, and the appearance due to it at once excited attention. Certainly the hæmoglobin was much reduced, yet the patient was so ill we did not care to disturb her to ascertain its percentage.

One class of phenomena deserves more lengthy remarks—the physical signs of the cardiac lesion. At first, at the mitral orifice a systolic murmur transmitted in the usual direction was heard. It varied in loudness and pitch. Later it diminished in pitch and volume, and at the same time a very loud systolic murmur, high in pitch and grinding in character, was heard on the third left rib and in the second left interspace one and a half inches outside the sternal edge. So loud was the murmur in this situation that, especially as it was attended by a thrill, we thought the pulmonary valves were implicated in the disease. The occurrence, however, of an increased area of pulsation, most distinct in the second and third interspaces, and of an increased area of dulness in the auricular region, led to the conclusion that mitral stenosis was present. A presystolic murmur was not heard, however, and probably was not present. It was not cre-

ated because of the projection of the vegetation over the orifice, in all probability. For a similar anatomical reason one can infer that the ventricle fills, partially at least, prior to and independent of contraction of the auricle. For with such an effort, at once communication would be cut off by the vegetation.

The systolic murmur was heard, in the latter weeks, loudest in the second and third interspace. Two causes can be invoked for this peculiar localization of the murmur. The projection of the mass from the auricular surface of the valve could readily throw the back flow of blood—the valve not closing from the situation of the second mass—into vibration, and thus murmur and thrill be produced and heard loudest over the auricle. While such an explanation suffices, a second cause for the murmur can be found in the position and dilatation of the auricular appendage. If such a view of the case is held, then the theory of Naunyn and Balfour to explain the mechanism of systolic murmurs in this location is well illustrated. The excessive loudness of the systolic murmur at the angle of the right scapula was very peculiar. The ease of recognition during life, and the peculiar physical signs, are the features of prominent note in this case.

DR. KOCH'S
PICTURE. The pictures of great men in the medical profession serve to keep before the mind the noble examples we all strive to emulate. Messrs. Parke, Davis & Co., of Detroit, have placed the medical profession of this country under lasting obligations for excellent pictures of Louis Pasteur, of Paris, and Prof. Robert Koch, of Berlin. The pictures are handsomely gotten up, and when framed are fit to adorn the halls of science everywhere. Any physician sending his request, may receive from Messrs. Parke, Davis & Co. a copy of Prof. Koch's picture. It is a handsome engraving, life size, and will, no doubt, be much sought for.

GENERAL SURGERY.

CLINICAL LECTURE ON THE PRINCIPLES OF AMPUTATION.

With a consideration of some points in the Technique.

BY

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[Reported for the *Journal of the American Medical Association.*]

The late Sir Wm. Ferguson used to speak of amputation as "one of the meanest, and yet one of the greatest operations in surgery; mean when resorted to if better may be done—great as the only step to give comfort and prolong life." In studying the conditions under which amputations have been re-

sorted to during the past half century, it is astonishing to see how limited in number those conditions are at the present day. Szymanowski once said that "we must reach such a state of perfection in amputation as to consider every amputation a plastic operation;" and with a view to the accomplishment of such an object I desire to direct attention to this subject in the lecture to-day.

There are four periods at which amputation can be performed: 1. *Immediate*—before reaction from shock; 2. *Primary*—after reaction but before inflammation; 3. *Intermediate*—after inflammation but before suppuration; 4. *Secondary*—after suppuration is established. For all practical purposes these four periods can be reduced to the primary and secondary. As a rule, to which there is scarcely an exception, the immediate amputation should not be performed, as the patient is likely to die from shock during the operation. The double shock of the operation and of the injury is apt to kill the patient; and the shock of the injury of the limb may be complicated with shock from injury of some important internal organ from which the patient could never rally, and hence the impropriety of the amputation, and the needless additional suffering to the patient on account of the operation.

It is sometimes necessary to amputate as soon as consistent with safety. Now, what is to guide the surgeon in his decision of so important a question? In cases of compound comminuted fracture, with injury to the main artery of the limb and with great loss and destruction of tissue in the soft parts, the hemorrhage is often alarming, and amputation is called for imperatively as the only salvation for the patient. What is the earliest moment a surgeon should operate? Never during profound shock; and the rule which must govern a surgeon is, to employ all known means to control hemorrhage and to bring about reaction from shock, and wait. If the patient has pallor and coldness of skin, weak and feeble pulse, sighing respiration, non-reacting pupils, traumatic delirium—internal injuries, no amputation is indicated. The earliest possible time an amputation can be performed, under great necessity from hemorrhage, is when reaction is beginning; but unless the patient is likely to become exsanguined by delay the beginning of reaction is an unfavorable period for operation, and it is wise to defer it until reaction is fully established. Amputation should not be performed with a sub-normal temperature, a cold skin, a feeble, rapid pulse, or during traumatic delirium—especially in children. The condition, then, of the temperature, the skin, the character of the pulse and the mental state, are all important factors in the solution of this problem. Delay in performing an amputation was formerly fraught with very great danger from septic infection; but with the modern methods of preventing sepsis in a recent wound, this obstacle is removed; and with antiseptic compresses applied tightly over the bleeding wound, and not above the wound upon sound tissue, hemorrhage can be controlled and the wound kept from rapid sepsis a sufficient time to give the patient opportunity to react. I have seen an Es-march elastic bandage applied above a lacerated wound, over sound tissue, and when the flaps were made a certain amount of slough-

ing followed from the compression. The wound itself is the proper place to apply firm compression, never above the seat of wound. This point is one of practical importance, because the elastic bandage as a means of controlling hemorrhage has been misused; instead of applying the compression over the bleeding part, it has been carried above the bleeding part and over sound tissue. As a result of this gangrene in the flaps may occur, with its accompanying septicemia.

The mortality of amputations depends upon a variety of conditions; even the state of the weather has been shown to have a causative effect on the death-rate. Hewson has shown that with a rising barometer the average duration of life in the fatal cases was only seven days, while with a falling barometer the average duration was thirteen days; and that seventy-five per cent of the fatal cases died when the barometer was rising. The conclusion is that while the state of the weather may or may not turn the tide for or against any given patient after amputation, barometric changes materially influence the condition of patients suffering from the effects of severe surgical operations, and have a slight influence upon the death-rate.

Age is also a factor in estimating the mortality after amputations. Holmes has proved "that the risk of amputation is constantly rising throughout life, and that at any given period after thirty years of age the risk is more than twice as great as it was at the same period after birth." Thus if, for example, it may be stated that five per cent is the mortality after amputation in a child at ten years of age, the mortality at forty years would be ten per cent.

The *seat* of the amputation is also an important factor. Amputations of the lower are more fatal than those of the upper extremities. In any given limb the death-rate increases in reference to the proximity of the amputation to the trunk. Thus if, for example, amputation of the thigh be represented by fifty per cent, the leg would be

forty per cent, the arm twenty-five per cent, the forearm thirteen per cent. These figures are far too high since the introduction of antiseptics, but are quoted to show the relative figures in the different amputations.

The *part of the bone* sawn through affects the mortality. The mortality is greater where the shaft is divided so as to expose the medullary canal than where the cancellated tissue of the bone is sawn through; for in the former case, the risks of pyæmia and osteo myelitis are greater than in the latter case.

The primary amputation is much more fatal than the secondary. Sir James Paget states that the mortality is twelve times greater in the former case. This rate is perhaps too high; but the fact that the primary amputation is attended with a greater death-rate is due to the severe character of the injury. It has been stated that the amputation of expediency, performed for the relief of deformity, is attended with a greater mortality than either primary or secondary amputations.

The *general health* of the patient importantly influences the success of an amputation. The condition of the kidneys, lungs, heart, and vascular system, liver, brain, and other important organs, materially affects the results after amputations.

The *previous habits* of the patient is another important factor. A man of dissipated habits has his chances of recovery lessened by his profligate life, while the temperate man has his chances of recovery greatly increased. Pneumonia often causes death after amputation in those cases where the patients have been hard drinkers for many years.

The *hygienic conditions* are most important in affecting the mortality. Patients in the country do better than those in the city, and the latter do better in private practice than in hospitals. Always secure for a patient abundance of fresh air and plenty of sunlight. Too much stress can not be placed upon his hygienic surroundings. While the weather, age of patient, seat of amputation,

the part of the bone sawn through, whether for injury or disease or deformity—above all and beyond all the hygienic conditions stand out foremost; and if we exclude serious organic disease, nothing is so important as the sanitary arrangements. Sir James Y. Simpson showed that five times as many deaths occurred after amputations in large city hospitals as in private and country practice. Today the mortality in amputations is very much less than in his day, and a large majority of the causes of death following amputations may be said to have been forever eliminated by the application of the principles of science and surgery. We will now discuss the indications for an amputation:

Aneurism.

Malignant disease.

Perforating ulcer of foot.

Uncontrollable hemorrhage (primary or secondary).

The operation of expediency in deformity, in tumors and tetanus.

A disease of the joint.

The moist variety of gangrene.

In certain compound fractures and dislocations.

Old sloughing and varicose ulcers.

Necrosis of bone.

These ten indications for amputations have thus been arranged in an acrostic, which will always enable the student or surgeon to have at his command the information.

REQUISITES OF A GOOD STUMP.

1. The bone must be amply covered.
2. The flaps must not be adherent to the bone nor exert pressure on traction upon the cicatrix.
3. The nerves must not be adherent to bone or cicatrix.
4. The nerves must be cut high enough so as not to be affected by pressure or by atmospheric changes.
5. The bone must be smooth and capable of bearing firm pressure upon it.

CHARACTERISTICS OF A BAD STUMP.

- | | | |
|-----------------------------|---|--|
| I. Necrosis at end of bone. | { | Sequestrum from injury to bone in sawing, by rough use of saw, by suppuration in bone by injury to periosteum, by sawing without irrigation to prevent the saw from acting as an actual cautery. |
|-----------------------------|---|--|

2. Conical-shaped stump { Insufficient covering, spasmodic retraction of muscles, growth of bone.
3. Neuralgia of stump. { External pressure, local and constitutional causes, bulbous enlargement, adhesion to cicatrix.

We may now direct attention to a careful study of the technique of the operation in its present perfected state. For the purposes of description of an amputation in general the following points are to be considered in an amputation of the leg:

First—Preparation of the patient.

Second—Provision against hemorrhage before operation.

Third—Formation of a suitable flap.

Fourth—Section of a bone.

Fifth—Provision against hemorrhage during operation.

Sixth—Treatment of wound.

The preparation of the patient consists in a careful study of the patient's history, and also the special preparation of the member to be removed. Before the operation the heart and lungs should be examined, the urine analyzed, the general habits of the patient inquired into with reference to intemperance, and opium habit, or previous disease, and other points of interest which influence the treatment after operation, as well as the mortality. In other words, the surgeon should study thoroughly the individual upon whom he is to operate, and make himself complete master of the situation. The local attention to the part consists in thorough ablution, shaving, and free irrigation with carbolic acid or bichloride of mercury solution.

Provision against hemorrhage before the operation.—The limb should be elevated and held for a few minutes, and at the same time rubbed towards the trunk. The tourniquet should now be placed over the femoral just beneath Poupart's ligament, so as to press against the bone. It should be screwed down quickly upon a bandage placed under the bone and over the artery; if it is slowly turned a large amount of

blood will pass into the limb, and the compression is soon sufficient to keep the venous return in the limb, but not enough to prevent arterial blood from entering the limb. Esmarch's bandage is often used instead of Petit's tourniquet, but the amount of oozing following its use is so great that I prefer digital pressure on the tourniquet, when properly applied. If the Esmarch bandage is used and the main vessels are ligated, the irrigation by hot water, as suggested by I. Varick, of Jersey City, will control the oozing better than any other means. If the hot water is employed for this purpose I should recommend that a weak solution of carbolic acid be prepared in anticipation, or else a mild solution of corrosive sublimate (say 1-4000). These solutions have the additional advantage of making doubly sure the aseptic condition of the flaps.

Third stage, formation of suitable flaps.—Circumstances often influence the surgeon as to the kind and shape of flaps in any given case, but if he can operate at a point of election instead of a point of necessity, either the circular skin flap, modified, if necessary, by two lateral sections, which converts the amputation into one of an antero-posterior skin flap of equal length, or Teale's long anterior and short posterior flap, or the bilateral flaps, will be found best in all amputations. Whatever shape may be decided upon, all flaps should consist of skin and connective tissue only, and not muscle. At all points of the body where pressure is made against bone, skin alone covers the part; the os calcis and the olecranon, the tuberosities of the ischium, are good examples of this. If muscle be included in the flap on the supposition that it will form a soft cushion over the divided end of the bone, the fact that the muscle soon completely atrophies takes away the supposed advantage. If the muscle is included there is considerable bleeding from the cut surfaces and there is a much larger wound for healing.

The surgeon having decided on the kind of flap desired, every thing is now ready to begin. One assistant gives ether, another hands the instruments, a third holds the limb to be removed, a fourth is responsible for the application of the tourniquet or the elastic bandage, and a fifth sponges and helps tie the vessels. Each assistant must understand his respective duties, and he must not interfere with the duties of the others; thus the operation from beginning to end will be executed in perfect order, and with the least possible delay or suffering. The nurse should wash and wring out the sponges used during the operation; and what has been said of antiseptic preparation of the assistants must include the nurse.

The surgeon stands upon the right side of the limb to be removed, so that he can hold back the flaps with the scalpel, and in doing so he must remember to cut with his scalpel directed at right angles to the long axis of the limb, and the cutting edge slightly turned towards the part of the limb to be removed, and never towards the flap. In this way he can not button-hole the flap, and the edge of the flap being cut at right angles to the long axis of the limb will not slough, as it will do if the edge is cut obliquely. The flap should consist of skin and connective tissue and deep fascia down to the muscle; but it is not to include the muscle. The blood-vessels nourishing the flap run between the skin and the deep fascia, and if the edges of the flap be cut at right angles and not obliquely, the extreme edge of the flap is bountifully supplied with vessels. In dissecting up the flaps they should be held by the surgeon's fingers, and never by forceps, which contuse the flaps. The surgeon having dissected up the flaps to a convenient distance, and holding the flaps back with his left hand, he is now prepared to make a circular section of the muscles down to the bones.

Before cutting the muscles an interosseous flap can be cut, as suggested by Linhart, of Würzburg. The object of the in-

terosseous membrane flap is to prevent the retraction of the tissues which carry the vessels up out of reach. A small catlin is thrust in close to the tibia and then carried down for about two inches parallel with the bone. The catlin should now cut across until it comes in contact with the edge of the fibula, and then upwards along the edge of the fibula to a point opposite to where the first incision was made. This will cut out a tongue-shaped piece of tissue composed of the interosseous membrane upon and attached to which the anterior tibial artery is found. This interosseous flap retracts more readily than muscles, and consequently, being cut two inches longer than the muscles, the flap with the artery will be found directly upon the face of the stump.

With a large amputating knife the muscles should be severed at a point just below the point where the base of the flap is attached. It is best to allow for a certain amount of contraction of the muscle after it is cut, and if the circular division is made as described, the cut surface of the muscle extends down so as to be upon a plane corresponding with the bone or bones. A double-tail retractor, or a triple-tail retractor if two bones exist in the extremity, is placed in front of the face of the stump between the bones so as to keep the muscles from being injured during the sawing of the bones.

Fourth stage, section of the bone.—The leg must be firmly held during the sawing, and the assistant supporting the part to be removed must avoid any pressure downwards, this movement being likely to cause fracture of the bone, or any movement upwards, which is likely to bind the saw and prevent its free movement. When the femur is to be sawn the saw should go through the linea aspera before completely severing the bone, and this will avoid splintering the edge of the linea aspera. When two bones are involved, as the tibia and fibula, they should be sawn upon the same level, remembering to saw through the

smaller of the two bones first, so as not to disarticulate the fibula at its upper end. Volkmann has found that rapid sawing causes so much friction that great heat is generated, which produces circular necrosis at the end of the bone. The saw should be used gently and drawn lightly from heel to toe, and the sawing should be performed under continuous irrigation, so as to prevent the development of too much heat from friction. The surgeon should now pass his finger over the surfaces which have been sawn, and remove by Liston's bone-forceps any slight projection or splinter, and then bevel the edge of the tibia so that its sharp crest will not perforate the skin when the flap is drawn down over the face of the stump. If desirable, a small piece of periosteum can be pushed up from the bone before the saw is applied, and then the periosteal flap can be stitched over the front of the bone by a catgut suture. This procedure was formerly in vogue to prevent osteo myelitis, as the periosteal flap united by primary union, so that no suppurative discharge could be absorbed by the medulla.

Fifth stage, provision against hemorrhage during the operation.—The surgeon should secure and tie the main artery first; then the other arteries in turn according to their sizes. Do not tie veins unless it is necessary. The artery forceps should embrace only the divided end and open mouth of the artery, and the ligature should involve the vessel only, none of the surrounding tissues. Catgut is preferable for ligatures, as it possesses the especial advantage of allowing the stump to be closed. If torsion is employed the advantages are still greater; but this method is only safe in the hands of surgeons who understand its use thoroughly and are skilled in its practice. After all the vessels are tied or twisted some oozing may occur. This is controlled by hot irrigation, or by packing into the stump a number of antiseptic sponges wrung out in hot bichloride of mercury.

After hemorrhage is completely arrested
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and the wound-surface perfectly dry, the last and sixth stage is entered upon, and this leads us to the discussion of a most important subject, viz: *the treatment of the wound*. The different methods which have been devised are numerous, and many of them complicated. I pass by the Guérin pneumatic occlusion method and the Maisonneuve pneumatic aspiration method as too difficult and complicated for the use of the general practitioner. The cold water dressings as suggested by Liston, and the continuous bath recommended by Langenbeck, are methods to be employed in exceptional cases. Dressings of stumps, for practical purposes, may be reduced to one or two methods; either the closed or the open method. The great majority of cases should be dressed by closing the wound. In treating an amputation wound by the first method, it is assumed that all the details of antiseptic surgery have been carefully carried out; otherwise failure to obtain primary union is certain.

In dressing a stump with a view to obtaining primary union, it is often advantageous to defer permanently closing the stump for several hours. This is especially indicated where there is much oozing from the surface of the wound. By deferring the final dressing for a few hours the wound is not closed until it is perfectly dry, and until a delicate film of coagulated blood glazes the surfaces. Whenever the final dressing has been deferred I have irrigated the wound thoroughly with a hot solution of bichloride of mercury, and then packed with a large number of small sponges which have been taken immediately out of a glass vessel containing a solution of hot bichloride of mercury. The sponges should be wrung out as dry as possible and introduced into the wound, and the flaps brought over the sponges, and then a heavy bandage of antiseptic gauze placed over the stump with but moderate compression. In five or six hours, the patient in the meantime having reacted from the shock, is now perfectly conscious,

and will permit, without suffering any pain, the completion of the dressing.

The bandage should be carefully removed from the stump and one by one the sponges removed from the wound; and all oozing having ceased, a thin film of iodoform can be dusted or sprinkled over the flaps and upon the face of the stump. A drainage tube of *red* rubber—because it contains no sulphur—should be placed in contact with the face of the stump, brought out at each angle of the wound and cut off flush with the surface of the skin. The flaps should now be approximated and the sutures tied. Catgut should be employed; but three or four silver sutures should also be used, because the catgut often absorbed too quickly and the flaps are not held firmly. The silver relaxation sutures can be removed as soon as they show evidence of the slightest irritation. A button or silk suture or horse-hair can be used instead of the silver wire if the surgeon prefers. If the edges have been accurately approximated a thin film of iodoform can be sprinkled over the line of incision, and then the protector and then the hospital gauze lightly placed over the stump. The gauze next to the wound should be wet, having previously stood in a hot solution of bichloride of mercury or carbolic acid. The gauze should be wet, because dry carbolic gauze is not antiseptic unless it is warm. The absorbent cotton can now be placed over the entire stump and held in place by an antiseptic bandage. Over this dressing layers of antiseptic gauze can be placed with the Mackintosh; the latter can be dispensed with as a rule. The superficial dressing of hospital gauze should be dry and quite firmly bandaged to the stump, which should be placed upon a splint and bandaged to it.

In three days, if every thing has gone on well, the dressing should be changed under irrigation so as to remove the drainage tubes, and a new dressing applied in the manner already described. This second dressing can remain unchanged for a week, and then

a new and final dressing can be applied. It is thus evident that by this method all the great principles of wound treatment have been observed.

In exceptional cases, however, it is not best to close the wound because primary intention can not be obtained on account of the peculiar conditions of the wound. In cases of compound fracture, attended with great crushing of bone and soft parts, there is occasionally some contusion over a small area of the wound, which might prevent primary union, but is not sufficient to prevent a satisfactory healing by secondary intention, and thus securing a longer stump. Another circumstance where closing the wound is not best, is an amputation of emergency, at a place where antiseptic dressings can not be secured immediately. I believe that under such circumstances no attempt should be made to secure primary union, because all the essential conditions are absent, and a failure under these circumstances would expose the patient to serious risks from septic infection. Half-way antiseptic surgery is more dangerous than full exposure of the wound to the air. I believe that leaving the wound fully exposed to the air is not only safe, but it is in reality the best method where all the conditions of rigid asepsis can not be controlled. During the past session I have treated two stumps by the open method, and both of them did just as well as regards constitutional disturbance as the others. The open method has one disadvantage; the wound does not heal so quickly, but it heals satisfactorily in the end. In the open method the highest type of antiseptic surgery is found. The frequent use of carbolic acid renders the soil unsuitable for the growth of germs, the causes of putrefaction. The unobstructed flow of the discharge prevents the secretion becoming putrid. The exposure of the wound permits evaporation, which renders the discharge too highly concentrated for favorable growth of these germs; and, finally, as Pasteur has shown, this same free:

EYE, EAR, AND THROAT.

exposure, by the supply of oxygen to the microorganisms, prevents their disorganizing and breaking up the albuminous compounds in their struggle for one of the essentials of their being. The preservation of the albuminous compounds diminishes, and even prevents the processes of putrefaction. The exposure of the wound lessens the chances of decomposition by causing it to become dry.

There is no real inconsistency between antiseptic surgery, as now understood, and treating a wound openly. A careful study of the principles of antiseptic surgery shows that both methods are in accord with its precepts, only that in the open method the wound heals by secondary union, and still the wound is aseptic. In the open method the stump is irrigated every few hours with carbolic acid solution. Balsam of Peru is used to stimulate the granulations, and in ten days the granulating surfaces upon the flaps are approximated, and healing takes place between these two granulating, instead of between two fresh surfaces. In epidemics of diphtheria I have found the open method preferable, because a healthy granulation surface is a barrier to the entrance of septic poison.

In conclusion, gentlemen, endeavor to obtain primary union in all amputations by using every detail requisite to success. When the conditions are unfavorable, aim at secondary union by the open method; but remember that even if the open method is best suited to certain cases, it is still antiseptic surgery in its highest and broadest sense, and that good judgment and a due regard for the best interests of the patient has persuaded you to adopt the method which is less brilliant in its technique, but more brilliant under such circumstances in its ultimate results.

IODOL

Has proven entirely worthless, and no one may now be found willing to use it. Iodoform, on the contrary, has taken a fresh hold upon the confidence of surgeons.

THAT YEAR'S
WORK AT THE
PRESBYTERIAN
EYE HOSPITAL,
BALTIMORE.

BALTIMORE, MD.,
May 11, 1887.
*Editor of the Maryland
Medical Journal:*
DEAR SIR—It gives
me much satisfaction
to know that an old

method of treating cataract cases after extraction operations, which had been nearly forgotten, and which the work at the Presbyterian Eye and Ear Charity Hospital of Baltimore has been the means of reviving and of forcing upon the notice of the profession abroad as well as at home, is deemed of so much importance that claimants for its reintroduction are springing up from every quarter. It now seems that surgeons knew all about it, and I am ready to confess that they did; for there seems to be nothing new under the sun.

When I attended the Eye Clinic of the elder Desmarres, in Paris, in 1850 and 1851, the only method that I saw in use for dressing eyes after cataract extractions was by adhesive strips. In his earlier work on Eye Diseases, published in 1847, Desmarres explains why he preferred these adhesive straps to compresses and bandages used in some parts of Europe. In the second and enlarged edition of his work on Eye Diseases, published in 1858, he says that the single piece of adhesive plaster, as a dressing after cataract operations had become of universal use in Europe. Dr. Agnew saw it in use at the Royal London Ophthalmic Hospital in 1855. This single piece of adhesive plaster as the sole dressing was not removed for seven or eight days. This was the dressing that I saw on cataractous eyes when I again visited Paris in 1859. There were at that time no special Eye Hospitals in Paris. Cataracts were treated in the open general surgical wards, as were any other surgical operations, and the eye patients were compelled therefore to take the light as did the others.

Thirty years ago Paris was considered the center for medical learning, and very large number of American Physicians sought hospital instructions there. Desmarres' Clinic was a favorite resort. Hundreds must have noted the adhesive plaster dressings after cataract extractions, and therefore must have brought the knowledge of it to this country. Dr. Agnew, Dr. Michel, myself, and a great many others were of this number.

As the question is evidently being asked, who devised the plan of treating eyes after cataract extraction with adhesive plaster strips as the sole dressing, and the patient kept in the ordinarily lighted surgical wards of a general hospital during the treatment, I must say that it antedates the present generation of eye surgeons, and can be claimed by no surgeon now living.

In 1886 I went again to Europe for the especial purpose of studying eye diseases, my work up to that time having been in the line of general, not eye, surgery. At this time I found that the adhesive plaster dressings had disappeared altogether from hospital work. Compresses and bandages had become the universal dressing, and eye patients were being concentrated in the dark wards of a special Eye Hospital, or in dark rooms especially assigned to eye patients in the general hospitals. On my return to the United States I gave up general surgery, restricting my professional work to the treatment of eye and ear diseases and changed my home from Charleston, S. C., to Baltimore, Md. Naturally I adopted the method of dressing which I found in universal use and which I continued to use till May, 1886.

It would seem that the adhesive plaster had never been altogether abandoned either in this country or abroad, and was used sporadically by individuals. It was, however, so little known or generally thought of that I am safe in saying that prior to 1886 applications of compresses and bandages, in some one of the many forms, comprised the authorized after-treatment of cataract extrac-

tion cases. In support of this statement examine any work on eye diseases written during the past fifteen years.

As to exposing cataract eyes in light rooms I again say that it was not the custom in general use prior to 1886, not even by Dr. Agnew. He, as we all know, allowed light in the wards for the convenience of the surgeon and the attendants, but the patients' eyes were covered by a *black silk bandage* which kept them in darkness. See a paper entitled: A Method of Dressing Eyes after Cataract Operations, by Dr. C. R. Agnew, published in the Transactions of the Ophthalmological Society for year 1869, extract, "That it is a clinical desideratum to be able to treat a case of ophthalmic surgery in a well lighted room *without admitting light to the wounded eye*," taken from a letter from Dr. Agnew, which appeared in the *N. Y. Medical Record*, July 24, 1886. *The new treatment consists in exposing the eyes of the patients operated upon for cataract to the light, and is designed for their exclusive benefit, not for the surgeon and nurses. A very different thing from the lighted rooms of Dr. Agnew, whose patients were still kept in darkness.*

When I attended the meeting of the National Medical Association in St. Louis, May 1886, I was thrown much with my friend Dr. Michel, both of us natives of Charleston, S. C. He mentioned to me that he used adhesive plaster in dressing for cataract patients, and did not confine them to dark rooms; moreover that he got as good results in practice as did his neighbors who used compresses and dark rooms. In pondering over the matter I thought it of sufficient importance to bring it up for discussion in the Section on Ophthalmology, for the purpose of finding out whether this method of treatment was pursued by others. I make the following extract from page 128 of *The American Journal of Ophthalmology*, Report of the Ophthalmological part of the Section of Ophthalmology, Otology, and Laryngology, Wednesday, May 5: "On motion of

Dr. Savage, Dr. Chisolm was then requested to make some remarks on iridectomy. He stated that he had got a statement from Dr. Michel, of this city, which had startled him, viz: that he did not longer bandage nor confine patients after iridectomy or extraction had been performed, and that his results were better than before. The discussion brought about some severe criticisms on such action, and it seemed to be the feeling of the majority that to let well enough alone was wiser, until it could actually be proven that something was really to be gained by such a procedure. Dr. Chisolm stated that he for one was going to test whether the artificial photophobia, which is undoubtedly caused by the bandaging, could not be dispensed with, without causing other disagreeable results, by not bandaging such eyes." The members of the Section had but little experience with this treatment, and did not regard it with any favor whatever. Had it not been for myself the topic would never have been discussed, and I think that I can say, with the exception of myself, the subject was forgotten before the Section adjourned.

During my ride home, to Baltimore, from St. Louis, 1000 miles, I had ample time to carefully weigh this method theoretically, and to determine in my own mind reasons why it might possess advantages over the universally used compresses, bandages, and dark rooms. On reaching home I at once put in practice the subject of my meditations. In three weeks, with the large amount of material at my command at the Presbyterian Eye and Ear Charity Hospital of Baltimore, I had experimented sufficiently to give publicity to the work in the early June number of the *Maryland Medical Journal*. In a July number of *New York Medical Record* the subject was still further discussed, my reasons for my change in the treatment being clearly set forth, and giving Dr. Michel credit for having brought the matter to my notice.

Another article, also on the same subject,

appeared from my pen in the June number of the *American Journal of Ophthalmology*. These papers were extensively commented upon, at the time, in the various medical journals of the United States, and also in many European medical journals. The reasons given by me for the change of treatment were so convincing as to induce many specialists to try for themselves, when they in turn became enthusiasts for the new treatment. Extract of an article on this subject in the *London Lancet* for September 18, 1886, by Simeon Snell, Esq., M. R. C. S.: "I am free to confess that I have seldom seen a paper that more directly appealed to me as to the justice and reasonableness of the conclusions set forth."

I have no desire to rob Dr. Michel or Dr. Agnew of any credit whatever. Most gladly would I add, were it possible, to the well-earned reputation of both of these distinguished ophthalmic surgeons. Say what you will, however, the grit of the whole matter is the heading of the correspondence in the *Maryland Medical Journal*, May 7, 1887, "*That Year's Work at the Eye and Ear Charity Hospital, by Dr. J. J. Chisolm.*" If that work had not been done would the subject be under such warm discussion to-day, and would leading ophthalmic surgeons at home and abroad be fighting for the priority of the suggestion? I heard of a treatment which impressed me as differing from one in universal use. The more I pondered over it the more valuable I thought it might be made. Within a week I had tried it, and by the end of a month my experiments were sufficiently numerous and successful to warrant their publication. This first article was rapidly followed up by others, urging specialists to try the plan proposed, when I felt assured that they would also adopt it.

Dr. Michel, in a paper in the September number of the *Archives of Ophthalmology*, 1886, writes: "While pursuing my studies with Desmarres in 1857, it occurred to me that there were no good reasons for the dark room and bandages then and yet in general

use after operations. I determined as soon as possible to test the question for myself. Soon after my return to the States the war commenced, and I had but few opportunities to put my convictions into practice, but the cases treated at long intervals between 1861 and 1870 so strengthened me in my belief that I soon after entirely emancipated myself from the old routine, and now for the past twelve or fifteen years have discarded bandages and darkened rooms." In this connection read extract from second edition of Desmarre's Work on Eye Diseases, embodying his experiences and practice at his Eye Clinic in Paris, 1858, page 233. I give the literal translation. "I have slightly modified this adhesive dressing for some little time. (He refers to applying five narrow strips, as recommended in the first edition of his work, printed 1847.) I cut a single piece of court-plaster a little oval transversely, and capable of covering the two lids closed. I make a notch in the plaster at the large angle (the inner canthus) sufficiently large to allow the conjunctival secretions to flow away."

Dr. Michel, for the better results obtained by him had evidently resumed the old methods treatment which he saw in use at Desmarres' Clinic in 1857, and which he used more or less constantly from 1861 to 1886, twenty-five years. Yet during these many years the world, suffering from cataracts, were imprisoned in dark rooms under hot, thick bandages. Why did Dr. Michel keep this better method to himself? Why did he not tell us all about it in 1870 or in 1875; in 1880, or in 1885? Had he told his professional neighbors in his own city they might have tried it for themselves and possibly given the results of this good work to those so anxiously awaiting the news. Had it not been for the experiments in this direction, first tried by me at the Presbyterian Eye and Ear Charity Hospital of Baltimore, and when proved of great value, *from this institution as a center*, sent by me through the medical journals to all parts of the world,

we would not be now receiving news from most distant points, of this old method made new, for the comfort of both surgeon and patient.

I do not claim the introduction of adhesive dressings into eye practice, nor the treating of cataract patients in open wards, for both were in use forty years ago, and before I took up the study of medicine. I think that I can claim, however, without fear of contradiction, that I have given such good and satisfactory reasons why this old and discarded treatment should be reaccepted *that I have actually made it new*. Also that I have induced a great many ophthalmic surgeons to follow my example and abandon compresses, bandages, and dark rooms, to the comfort and benefit of their cataract patients. Also, that from the Presbyterian Eye and Ear Charity Hospital of Baltimore, *as a center*, this good work has radiated, certainly not from St. Louis, nor from New York. Yours respectfully,

J. J. CHISOLM, M. D.

THE GREAT DANGER IN RECOVERY.

At page 551 of the current volume of the *New York Medical Journal* appears this headline, "Fracture of the Fifth Cervical Vertebra, with Recovery." It is bad enough to have the fifth cervical vertebra fractured with a club or a sledge hammer, or the bullet of an assassin, but to have it fractured with recovery from some unknown affliction, must indeed be the greatest possible torture. The case reported was of such a painful nature that, out of deference to the feelings of the distinguished gentleman who made the report, we forbear the temptation to relate any of the details.

DR. D. G. BRINTON RETIRES.

Dr. Daniel G. Brinton, to whose scholarly training and journalistic talent the *Philadelphia Medical and Surgical Reporter* is indebted for much of its popularity, has retired from the editorial management.

OBSTETRICS AND GYNÆCOLOGY.

IS THERE A SPECIAL GYNÆCOLOGIST?

Prof. W. H. Wathen, of this city, thinks it absurd in any one to set up a pretence of skill in Gynæcology without practical experience in the lying-in chamber. In fact, he regards obstetrical practice of the skilfully educated as, in many respects, adequate to the prevention of those conditions which the modern gynæcologist professes to remedy. There can be no doubt of the mischief which exclusive specialism has wrought in the minds of the young men who have, on account of a mistaken judgment, been induced to study medicine solely with the view of entering a limited and special field of practice. There are no special organs of the human economy which may exist independently of the whole body, and therefore no organs exist which may in the presence of disease or injury be treated independently of the state of the general economy. This we fancy is the ground upon which Prof. Wathen professes to stand; and it may be fearlessly maintained as exceedingly strong ground.

THE FUNIS.

Dr. Ed. J. Kempf, of Ferdinand, Ind., thinks the customary method of dealing with the umbilical cord is not proper. He thinks it should not be tied until pulsation ceases. He would then tie in two places, and cut between the ligatures. After this he would place a ligature about one inch from the umbilical end of the cord, cut it off close, squeeze out the contents, and dress with vaseline. There are so many methods of dealing with the cord, it would be difficult to enumerate those which may be fairly called ordinary.

CÆSAREAN SECTION.

The Cæsarean section has been recently performed by Prof. William T. Lusk, of New York, with the

result of saving both the mother and child. Prof. Lusk is to be congratulated upon his achievement. It would seem that abdominal surgery is now about as safe as amputation of the forearm. Antiseptic precautions constitute the secret of success in the practice of both of its chief opponents, Dr. Bantock and Mr. Tait. It is not fair to denounce the very existence of septic germs simply because one is able to exclude their presence from his own household.

O'REILLY'S METHOD.

O'Reilly's method of arresting post-partum hemorrhage has been successfully employed sufficiently often to entitle it to the first rank in the treatment of such cases. It consists in passing the vaginal nozzle of a good syringe through a sponge about four inches in diameter, then moistening the sponge it is compressed with the fingers and carried up into the fundus uteri. An assistant attends to the water supply, an abundant injection of which quickly brings on uterine contractions, and the hemorrhage ceases with no retained clots. The water injected flows back through the sponge, and if impregnated with some sort of antiseptic, such, for example, as one grain of mercuric chloride to the pint, would tend greatly to lessen the danger of carrying septic matters either in the sponge, the syringe, or the water used.

SPONTANEOUS GENERATION.

As the bacillus of typhoid fever is a living organism always in obedience to the universal law of procreation, reproducing its own kind, the pre-existence of the parent is necessary to the appearance of the young. How, then, can typhoid fever appear in a person in any other manner than from the introduction of the *bacillus typhoideus*? To establish the independent and spontaneous origin of a single case of typhoid fever would be proof of spontaneous generation.

PATHOLOGY AND HYGIENE.

MILK-DIPHTHERIA
AT CAMBERLEY
AND YORK TOWN.

In the *British Medical Journal* of May 7th may be found the following :

The report by Mr. W. H. Power, just issued by the Local Government Board, on the outbreak, in October last, of diphtheria at York Town and Camberley, in the Farnham rural sanitary district, is one which will be read with interest by all students of preventive medicine who are anxious to unravel the mystery at present surrounding the causation and dissemination of diphtheritic throat affections. As Mr. Power incidentally remarks, "It is not often that so good an opportunity as the present is afforded the observer who seeks to understand the method of disease-distribution in milk." For several years past diphtheria has prevailed more or less continuously, although in somewhat sporadic fashion, along the valley of the river Blackwater, and the matter has been the subject of more than one official inquiry. But in October last the disease became suddenly epidemic in York Town and Camberley, in the neighborhood of the Staff and Military Colleges; and before it subsided, towards the end of the month, fifty-seven households had been invaded, and eighty-eight cases of diphtheria, five of scarlatina, and forty-seven of minor throat-illness had occurred, sixteen of the attacks proving fatal. Of these 140 attacks, ninety-two per cent occurred between the 8th and 18th of the month.

When Mr. Power, some time later, entered upon his investigation, the outbreak was very generally ascribed to the use of milk from a particular dairy, but by some it was referred to defects in the public sewer arrangements, by others to impurity of water-supplies, whilst some few attributed it to emanations from the foul matters dredged out of the Blackwater, and recently deposited on the river bank near to York Town. There was, however, no community what-

ever of sewerage arrangements or of water-supplies among the invaded households, and, although Mr. Power admits the danger arising from the tainting of the atmosphere by the foul dredgings of the river, he gives reasons for discarding that as an explanation of the outbreak. But the case is far different as regards the alternative of milk-infection. Of the 176 households in the infected area, ninety-four took their milk from a particular dairy, whilst eighty-two took it from other sources. Of the ninety-four households, forty-eight were invaded, including eighty-one persons attacked by diphtheria, and forty-three by minor throat affections, fifteen proving fatal. Of the eighty-two other households, only nine were invaded, six persons being attacked by diphtheria, and ten by minor throat-affections, one death ensuing. A glance at these figures is sufficient to throw suspicion on the milk of the particular dairy, whatever may have been the way in which it can have operated; but the evidence is even more striking when it is understood that all the customers (ninety-four households) of the particular dairy are in question, whereas there were some hundreds of houses getting their milk from the same sources as the eighty-two other households, but in the whole of which scarcely a case of any sort of throat-illness occurred.

He points out that it should be no objection that every one of the consumers of the particular milk did not suffer. We know from experience of milk epidemics generally that every individual partaking of the infected milk need not become attacked. But why that is the case has never been clearly made out. The customers of the particular dairy were found, socially, to be nearly equally divisible into two distinct classes, and it appears that, whilst eighty-four per cent of the houses of the better class were invaded, only twenty-two per cent of the cottages were attacked; and that, whilst thirty-three per cent of the better class of customers were attacked, only six per cent of the other class fell ill.

BOOKS AND PERIODICALS.

THE REFRACTION
AND ACCOMMODA-
TION OF THE EYE,
AND THEIR
ANOMALIES.

BY
E. LANDOLT, M. D.,
PARIS.

Translated under the au-
thor's supervision, by

C. M. CULVER, M. A.,
M. D.

*Formerly Clinical Assist-
ant to the Author, Mem-
ber of the Albany In-
stitute, etc.*

With one hundred and
forty-seven illustrations.

Philadelphia: J. B. Lip-
pincott Co. 1886. Cloth,
8vo. pp. 600.

[CONTINUED.]

der in which errors of perception in such cases occur. He supposes, inasmuch as the astigmatic eye sees a point sometimes as a line, that we must study the astigmatic eye by considering how it perceives a line; and for this purpose he considers the line as composed of a great many points, each one of them producing precisely the same phenomena as the single isolated point. Prof. Landolt seems to lose sight of the fact that many astigmatic eyes see a point covering a surface equal to one minute, not as a line, but as a mere smut, indistinct of outline, and could not possibly tell any thing about its form, whether round, square, oval, stellate, triangular, or what other shape it might be. So much of the pencil of light entering the astigmatic eye is lost as to do away with the idea of establishing any practical value for a distorted image. It is absolutely impossible to reach any practical result in the study of astigmatism on the basis of the altered form in which objects are seen. Snellen's test letters afford the only absolutely satisfactory test object for the acuity of vision in emetropia and all forms of ametropia. The astigmatic eye may not be able

In a discussion of this subject at the meeting of the American Medical Association of 1881, the reviewer pointed out certain letters which the astigmatic eye failed to recognize, and the late Dr. William S. Little, of Philadelphia, seizing upon this idea, conducted some experiments, which led to the development of his now celebrated test-card. Prof. Landolt has simply reversed the or-

to recognize the complete circle in the letter O, and, looking to the right side of the circle, the indistinct horizontal image may appear so great as to give it the appearance of C or G. Whereas, if the vertical image be correspondingly imperfect, the patient is in the habit of naming it U, not because the O looks to the astigmatic eye like the letter U, in fact, but because the patient will look at the top of the O and the U. The vertical image being indistinct, the slightly curved sides being apparent, he guesses it to be U, just as another eye whose meridian of unaltered refraction lies in an oblique direction will mistake the O for an S. Now, whilst this is generally true, it affords no more than a bare suggestion that astigmatism is present. Unfortunately, in determining the state of refraction in different meridians of the eye, the cycle of Euclid is too often reversed or lost sight of. In dividing the eye into meridians in the course of testing refraction, Landolt says, "each line should bear a number indicating its inclination to the vertical, or some other direction previously agreed upon. This vertical, then, is No. 0°, and the lines to the right and left bear corresponding numbers up to 90, which is the horizontal." This was suggested by Snellen, who proposes to consider the inclination to the left as minus, and to the right, plus, bearing in mind that zero really represents 90°, or the zenith of the circle. Owing to the fact that some practitioners calculated from the position they held as observers, whilst others fancied themselves observing for the patient, this rule makes no improvement upon the old plan of beginning with zero at the left hand end of the horizontal line and revolving to the right, reaching the right hand at the completion of the half circle or 180°. In all astronomical calculations, in fact in every system of optics, the cycle of 360° is employed; and in all questions of astronomical refraction, one half of that cycle represents the full complement of the highest possible angle of refraction, the lesser degrees being taken as numerical divisions of the superior half of the cycle. As for example, the angular aperture of an objective may be 20° or 120°. In some of the higher powers of immersion objectives 180° are claimed.

TO BE CONTINUED.

CORRESPONDENCE AND SOCIETIES.

DR. STANHOPE P. BRECKINRIDGE. The death of Dr. Stanhope P. Breckinridge, at his home in Chattanooga, Tenn., on Monday, March 14th, 1887, has removed from the profession of the Southwest one of its most gifted, accomplished and lovable members. He was a son of the late Wm. L. Breckinridge, D. D., a former President of Centre College, at Danville, Ky., and nephew of the distinguished theologian, Robt. J. Breckinridge, D. D., of the Theological Seminary, at Danville.

Dr. Breckinridge had just entered upon his career as a practitioner of medicine when the great civil war occurred, and entered the medical corps of the Confederate army. He served as a surgeon in the army commanded by his gallant and distinguished cousin, Gen. John C. Breckinridge, until the conflict ended, and for some time afterward practiced his profession in Danville. In 1869 he removed to Louisville, and was soon afterward elected to the Professorship of Materia Medica and Therapeutics in the Louisville Medical College. About this time he married Miss McKnight, a lovely and accomplished lady, upon whom he lavished the deepest and strongest affection of his warm emotional nature. Her death one year afterward gave to him a shock from which he never recovered; and threw a shadow across his path from which he never emerged. Ten years afterward, writing to a professional friend who had suffered a similar domestic affliction, he used these words: "After the shock passes away you will be able to reverence, if not to understand, the mysteries of human suffering, and you will be drawn into closer sympathy with the wretched and forlorn among whom it may be your lot to labor." No other words could more faithfully describe the controlling elements of his own unselfish and charitable nature and tender sympathetic disposition.

Ill health compelled Dr. Breckinridge to resign his professorship and seek restoration in the west. When he was able to resume practice, he went to Carroll Parish, Louisiana, where he did such work as he was able to perform for a few years. Six years ago he went to Chattanooga, where he resided and practiced up to the time of his death. The following resolutions of the Chattanooga Medical Society attest the esteem in which he was held by his confreres in that city:

WHEREAS, By another stroke of the Great Master Hand, Dr. S. P. Breckinridge, one of the founders of our society, has been suddenly stricken down by death, the great leveler, thus losing to our society one of its brightest gems, one who ever had our welfare so deeply rooted in his heart, and whose last act in this world was the preparation of a beautiful memorial for the friends of another, whose young life went out so suddenly and so soon after his career was demonstrating to us all how gloriously bright it had become; and

WHEREAS, By this sudden, sorrowful stroke of Providence our community has lost one of its most charitable citizens, always giving when his means would permit; and

WHEREAS, In his public and private life he has endeared himself to all by his gentlemanly acts, his quiet and urbane manners and his total unselfishness in this world; therefore

Resolved, That we truly express our grief and sorrow at this great loss to our society and community. Another good man has fallen, another philanthropist has gone to his reward.

Resolved, That a blank page in our records be dedicated to his memory, and that we will attend the funeral in a body and wear the usual badge of mourning for the next twenty days.

A committee of this society accompanied the remains to Louisville, where they were laid to rest in Cave Hill Cemetery beside the grave of his wife. At the time of his death he was forty-seven years of age.

Dr. Breckinridge was an accomplished, classical scholar, and his literary attainments were of exceptionally high order. Sharing genius of his family he was gifted in speech, and had a wondrous command of language. Upon the rostrum, in conversation, and with his pen he attracted and charmed all

who came within the circle of his influence. If his ambition to excel as a teacher, practitioner, and writer had been commensurate with his talents, he would have easily won national renown.

He possessed a gentle and sympathetic nature, extended polite consideration to all with whom he came in contact, and was altogether unequal to strife and conflict for place and reward. He cherished the deepest veneration and respect for his profession, and at all times gave his influence to promoting the welfare and elevating the tone of its members. He was fond of the association of his confreres in scientific organizations, and was a familiar and active figure in several State and local medical societies. He was one of the founders and the first secretary of the Boyle County (Ky.) Medical Society. His gentlemanly bearing, his unassuming and dignified courtesy, his consideration and amiability, his gift of flowing speech and his learning, his keen wit which always struck but never wounded, made him one of the most influential and conspicuous among the earnest, honorable, and superior practitioners who in 1865 first organized at Danville a society for promoting the study of medical science and advancing the standard of practical medicine and surgery in central Kentucky. He retained a sincere interest in the welfare of this organization, and only last December addressed the society a fraternal and congratulatory letter on the occasion of its twenty-first anniversary. His address of welcome to the Convention of Physicians which, pursuant to a call of the Boyle County Medical Society, met in Danville in 1868 to reorganize the State Society after the interruption of the great civil war, was one of the most brilliant speeches ever made in that society—a society famous for oratory and eloquence. His contributions to medical literature, though not numerous, were scholarly and valuable.

In youth and early manhood there were three gifted Kentuckians, pursuing profes-

sional and literary studies of rare excellence, amid almost constant companionship and affectionate association: John D. Jackson, the studious, accomplished, and able practitioner of medicine and surgery; John C. Young, the gifted orator and universal scholar; Stanhope P. Breckinridge, the gentle, sympathetic friend, the cultured physician and graceful scholar. They formed a remarkable trio, widely differing in individual and distinguishing traits of character, but all possessing genius, scholarship, and that wonderful influence sometimes called personal magnetism. The death of Dr. Breckinridge removes from earth the only survivor of these three devoted friends, no one of whom lived to the age of fifty, an age which marks the full maturity of mental power. Surely the gentle association and noble endeavors interrupted here have been resumed in the beautiful valleys of eternity. McM.

PHILADELPHIA

LETTER.

By our Regular Correspondent.

W. H. MORRISON,
M. D.

Commencements.—The Use of Mercury in Syphilis of the Nervous System.—Instruments to Improve the Hearing.

EDITOR OF PROGRESS—

The past month has, in this city, been one of medical commencements, our three medical schools graduating a total of 301 M. D's. The first of these commencements was that of the Jefferson

Medical College, which was held April 5th, at which time the degree of Doctor of Medicine was conferred upon 187 graduates. The valedictory was delivered by Dr. J. W. Holland, Professor of Chemistry. The meeting of the Alumni Association was held the evening previous, an address being delivered by Dr. Hunter McGuire, of Richmond, Va., his remarks being on "The Progress and Development of Medical Science."

The commencement exercises of the Medico-Chirurgical College were held April 7th, after the graduates received the degree, Dr. P. D. Keyser, Professor of Ophthalmology,

delivered the valedictory. Professor Dudley S. Reynolds, of Louisville, Ky., delivered the alumni oration, which was entitled "The Growth and Advancement of Medical Education." Following the address, a brilliant banquet was given by the Alumni Association at the Colonnade Hotel, at which there were over two hundred and eighty invited guests.

The commencement exercises of the Medical Department of the University of Pennsylvania were held May 2d, the graduates numbering ninety-nine. The valedictory was delivered by Dr. William Goodell, Professor of Clinical Gynecology. At the same time the degree of Doctor of Dentistry was conferred on thirty-nine graduates of the Dental Department.

At the last meeting of the Philadelphia Neurological Society, Dr. Landon Carter Gray, of Brooklyn, President of the American Neurological Society, read, by invitation, a paper on "Syphilis of the Nervous System and its Treatment." The point which received most attention, and to which most of the discussion was directed, was the statement made by Dr. Gray that his experience had led him to discard entirely the use of mercury in the treatment of syphilis of the nervous system, and to rely upon iodide of potassium in large doses. In some cases he had given as high as eight hundred grains in the twenty-four hours. He did not deny that cures might be effected by the use of mercurials, but he had never seen such a result follow their employment. He had seen cases which had done badly under the use of mercury at once begin to improve when the mercury was stopped and the iodides administered. While the members taking part in the discussion agreed with the speaker in regard to the value of iodide of potassium in the treatment of syphilis of the nervous system, they were equally certain of the beneficial effects of mercury, especially in those cases where the nervous affection was an early result of the syphilis.

An interesting demonstration of certain new instruments for the improvement of the hearing of the partially deaf was made before the last meeting of the College of Physicians, and repeated at a recent meeting of the County Medical Society. The instruments were those devised by Mr. Maloney, Washington, D. C. In these instruments there is no tube to enter the meatus and thus obstruct the entrance of the sound waves. A tightly stretched rubber membrane, about two inches in diameter, is secured between two rings and inclosed in a hard rubber box, which is applied against the external ear. To the outer portion is attached a cone-shaped tube for collecting the sound waves. The vibration of the rubber membrane sets in vibration the air contained in the external auditory canal. One form of the apparatus consists of the ear-piece just described, to which is attached a flexible rubber tube, terminating in a mouth-piece. This modification is intended to be used in the training of the partially deaf, the speaker applying his mouth to the mouth-piece and speaking in the tube while the listener applies the other extremity to his ear. The impact of the air upon the membrana tympani is prevented by the presence of the rubber membrane. In several tests made before the societies it was found that a person so deaf as to be unable to hear a loud voice was able to hear through this tube a whisper, while a person standing near the speaker and trying to catch what was said, heard nothing. The introduction of these instruments offers a means for decided advance in a field in which others have been working for some time with good results, that is the training of deaf mutes. It has been found by those interested in this branch, that a large proportion of those thought to be totally deaf have the power of hearing remaining to a certain extent, and that, with proper training, and exercise with suitable instruments, the hearing can be greatly improved.

ABERDEEN AND EDINBURGH.

Alexander Ogston—Osteotomy for Pes Planum—Antisepsis in the Aberdeen Hospital—Lumbar Abscess—Fungous Osteo-myelitis of Femur—Dr. Keith—His Method of Operating—Treatment of the Pedicle—Suturing the Abdominal Wall.

[*Journal of the A. M. A.*]

to my class, the discoverer of the pus-microbes, Professor Alexander Ogston, of Aberdeen. While the scientific world knows but little of Aberdeen, its Hospital and its University, the name of Ogston has penetrated to all parts of the civilized world. Dr. Ogston is a man in the prime of life, tall, and handsome. Although a profound scholar, an able surgeon, and a splendid writer, he is one of the most modest men I ever met; a good illustration that greatness is not incompatible with modesty, but rather the reverse. In my conversation with him I could not but draw a comparison between him and the average doctor in a medical society, who is full of experience, and crammed with positive assertions. Although living in a comparatively small city, Dr. Ogston's life is an exceedingly busy one. He holds the Chair of Surgery in Marshall College, where he teaches the various branches of surgery, including otology, ophthalmology, and gynæcology; at the same time he attends to the clinical work in the Infirmary, and a large private practice. I visited with him the Royal Infirmary, a building more than fifty years old, with 300 beds, nearly one half of which are occupied by surgical patients. Although the sanitary condition of the Infirmary is quite defective, all wounds showed that even under unfavorable circumstances good results can be obtained by strict antiseptic precautions.

One of Ogston's operations, osteotomy for pes planum, was illustrated by a number of patients in the hospital. The operation consists in the removal, with a chisel, of a wedge-shaped piece of the tarsus with the

Professor Nicholas Senn, M. D., of Chicago, writing to Dr. Fenger, says: One of the principal objects of my tour through Scotland was to see in the flesh the man whose name I had so repeatedly mentioned

base of the wedge directed downwards, so that when the osseous surfaces are brought into apposition the arch of the foot is restored. Coaptation and fixation is secured with two disinfected bone-nails and a plaster-of-Paris dressing. In all aseptic wounds the bone-nails disappear by absorption. He has done the operation forty times, and has never observed any serious results; and in only one case the deformity returned, and was permanently corrected by a second operation. He does not resort to this operation indiscriminately in every case of flat-foot, but only in such cases which do not yield to simpler measures, such as rest and fixation. About three months are required for firm bony union to take place, and he insists that the patients should not be allowed to step upon the foot before this has taken place, otherwise a return of the deformity would be inevitable.

An excellent proof of the care which is exercised in this old hospital in preventing wound infection, is the fact that all abdominal sections performed by Dr. Ogston and his colleagues, some thirty in number, recovered. For disinfection of the hands and field of operation the surface is washed with soap and warm water, and rubbed with a piece of pumice stone, after which it is washed with spirits of turpentine, and lastly with a five-per-cent solution of carbolic acid. The instruments are treated with turpentine, washed with carbolized solution, and immersed in a five-per-cent solution of carbolic acid. Dr. Ogston does not hesitate to walk from the dissecting room, or after a course of operations upon the cadaver, directly into the operating room and perform any operation, and has never observed any ill results of such a course when the hands are thoroughly disinfected.

I witnessed two operations in his clinic. The first was for an abscess, which had evidently commenced in the lumbar region and had gravitated below Poupart's ligament. He prefers, in all these cases, to make a free incision just above the iliac crest, and

drain the abscess from this point. He also called special attention to this method of operation, as it enabled the surgeon to seek for the cause of the suppuration in the lumbar region and the iliac fossa, and to remove the primary cause through the same incision should circumstances dictate such a course. He has never observed a ventral hernia after this operation.

The second case was one of fungous osteo-myelitis of the lower end of the femur, which had been operated upon some years ago, but the pain had recently returned. The femur was opened on the outer surface with the chisel, by removing quite a large piece of the compact layer. The interior was gouged out thoroughly, and after thorough cleansing and disinfection the cavity was allowed to fill with blood, after removing Esmarch's constrictor, and an antiseptic dressing applied. This manner of hastening the healing process in all wounds attended with loss of substance, first suggested by Schede, has yielded good results in Ogston's hands.

While in Edinburgh I called on Dr. Keith, and spent nearly two hours with him in conversation, which afforded me an excellent opportunity to become familiar with his views on hysterectomy and ovariectomy. Dr. Keith's personal appearance is striking and characteristic. Although not an old man, he shows only too plainly the effects of a life spent in the cause of his profession and for the benefit of suffering humanity. He walks with a stoop, his frail body being bent under the weight of many years spent in the performance of an arduous professional career. The wasted form and the deep furrows in his face only too plainly tell the story of the many anxieties, the hopes and the fears through which he has passed in affording relief to his many clients. A history of his life would reveal many a hard struggle which he encountered in his efforts to reach the prominent position he occupies, by universal consent, in the department of surgery, for which he has done so much in

elevating it from the mire of the empiricism to the dignity of a science. The unwritten history can be readily read upon his countenance, which shows only too plainly the effects of hard, conscientious work; the thoughtful and sad expression speaks of the many encounters with an ungrateful and unappreciative public, and the many sad experiences with a jealous profession. A look at his eyes, however, must satisfy any one that determination, energy, and enthusiasm can live in a frail body. These qualities which he possesses will explain the mystery of the marvellous amount of work which he has accomplished, and the wonderful results he has obtained under circumstances which have discouraged even the strongest of men. When we realize the limited hospital advantages which are furnished him in the Royal Infirmary, we must admire the man who can show such results. The victories which have been so dearly bought at the expense of health, and in all probability of a portion of life itself, are the most appropriate and lasting monuments of an unselfish life spent in the interests of the profession of his choice and suffering humanity. In the Royal Infirmary he has sixteen beds and only one nurse. His son, Skene, is his assistant.

His operations are performed in a small room heated by an open-grate fire, and but poorly supplied with light. Only a few students are invited to the operations. The patient is placed upon a board, to which she is fastened with a strap across the hips, and hands tied to it on each side; the board rests with each end upon a table, the operator and assistant standing one on each side between the tables. The room is disinfected before each operation with chlorine gas. The abdomen of the patient and hands of operator and assistant are washed with a strong alkaline solution for the purpose of removing the fatty substances, which, according to Keith, are carriers of the septic germs. After thoroughly washing the parts they are disinfected with a weak solution of

corrosive sublimate. Sponges are used over and over, cleansing them after each operation in warm water, and subsequently in an alkaline solution; they are kept for use in a five-per-cent solution of carbolic acid. During the operation they are kept immersed in a two-per-cent solution of carbolic acid. The spray he has abandoned, since he has suffered from repeated attacks of hæmaturia, and if any thing the results have been better since. Instruments are well cleansed after each operation, and during the operation they are kept in the strong solution of carbolic acid. All adhesions are carefully separated, and each bleeding point tied with catgut. Ovarian cysts are tapped with a large straight trocar just as soon as the peritoneal cavity is opened.

From the descriptions I had read of his treatment of the pedicle I had always been afraid to adopt his method, but after I had seen the method applied I became convinced of its safety. The pedicle is firmly compressed in his clamp, and two or more cautery irons heated to a dull red heat are applied for a sufficient length of time to heat the metallic plates of the clamp sufficiently to gently cauterize the compressed portion of the pedicle. The compressed tissue must be rendered "dry," and when this has been accomplished it looks like a transparent membrane. Some practice is necessary to graduate the heat for each individual case, but when properly done hemorrhage never occurs. Dr. Keith affirms that the tissues thus treated do not slough, but are speedily supplied with new blood-vessels. He has seen new blood-vessels in the cauterized portion of the stump after twenty-four hours. Before the clamp is removed each side of the pedicle is carefully seized with forceps which do not tear, and any vessel which might contain blood is separately tied. In the many hundred cases treated by this method hemorrhage was never observed—certainly the best argument in favor of the reliability of the method. The only

case of hemorrhage after ovariectomy which he observed was in a case where both ovaries were removed; on one side the pedicle was treated with the cautery, on the other the ligature was applied. Patient died in six hours. The post-mortem examination showed that death had been caused from hemorrhage which had taken place at a point where the pedicle had been perforated with a forceps for passing the ligature; the forceps had injured a vein wall, and from the opening thus made the hemorrhage had occurred.

Suturing of the abdominal wound is certainly done more neatly and thoroughly by Keith than any other ovariectomist. Medium-sized silk is used, cut in length of about eight inches; each end of a suture is mounted with a long, delicate needle, which bears the operator's name. The needles are passed from within outward, and after all sutures are in place they are picked up in a bundle on each side and the abdominal wall gently lifted so as to bring the peritoneal surfaces in accurate apposition, and while an assistant holds the parts in this position by making pressure on each side with his hands, the sutures are tied. To every inch at least three sutures are used. The skin is accurately united by applying a horse-hair suture between each of the silk sutures, thus securing the most accurate approximation and coaptation of the margins of the wound. After excision of the breast he relies entirely upon the horsehair suture. The wound is covered with a small compress of hygroscopic gauze wrung out of a solution of one part of carbolic acid and seven parts of glycerine. Over this a compress of common gauze or cotton is placed, and the whole retained in place with a flannel bandage. This dressing is allowed to remain for a time, when it and the sutures are removed. The bowels are kept quiet for a week, when a gentle laxative is administered. Catheterization is avoided whenever the patient is able to pass the urine without assistance.

TEXAS STATE
MEDICAL
ASSOCIATION.

Nineteenth Annual Meeting, held at Austin, June 26, 27, 28, and 29, 1887.

SYNOPSIS OF PROCEEDINGS.

Officially reported by F. E. DANIEL, M. D., Secretary.

The meeting was called to order by Dr. J. W. McLaughlin, Chairman of Committee of Arrangements, at 10:30 A. M., Tuesday, April 26th. Rev. T. B. Lee, rector of St. David's

Episcopal Church, delivered an eloquent and impressive prayer, in verse.

Dr. Daniel, Chairman of Committee of Reception, in a brief address, extended a welcome on behalf of Travis County Medical Association, and introduced Hon. J. W. Robertson, Mayor of Austin, who made an appropriate address of welcome. He was followed by Mr. A. H. Graham, who, being introduced, delivered an address also, appropriate, very eloquent and interesting. We regret that we can not reproduce these addresses here for want of space; they will appear in the transactions.

The President, Dr. T. H. Nott, of Goliad, was escorted to the chair by Drs. Morris and Wooten, of the reception committee, and delivered his opening address, replying in appropriate terms to the eloquent and fervent addresses of welcome.

The session was opened by calling the roll of members, and of county associations in affiliation. There were present and answering to their names, ninety-three members and representatives from several auxiliary societies, though there were probably double that number in the room, many being as yet not connected with the association, but delegates from counties and county societies.

The President delivered his annual message, recommending a new constitution and by-laws—the one at present governing the association being inadequate to its wants; the appointing of a board of censors of five, to be added to the permanent committees, and their duties defined, and they to take cognizance of and adjust all matters of a “personal character, and minor griev-

ances;” that “the stigma of professional disgrace should rest upon any who allow their names to be advertised as the endorser of patent medicines,” etc.; that the reports of chairmen of sections, if over ten pages, be referred to publishing committee without being read, etc.; that advertisements be excluded hereafter from the published transactions of the association, etc.

The reading of the minutes of Dallas meeting was, on motion, dispensed with, and adopted as printed.

On motion of Dr. H. L. Parsons, the message of the President was referred to special committee of five, with instructions that that portion relating to revision of constitution and by-laws be referred to the committee appointed for same purpose last year at Dallas. Committee: Drs. D. F. Stuart, M. D. Knox, H. K. Leake, J. D. Osborn, H. C. Ghent.

The judicial council was called, and the following members were present: Drs. H. M. Oliver, Frank Allen, M. L. York, H. H. Thorpe, T. J. Tyner, M. L. Haggard, J. R. Johnson. The following were added: Drs. J. W. Garnett, H. H. Darr, O. L. Williams, J. L. Irion, and G. W. Kerr. the judicial council immediately went into session.

Communications were read from a large number of distinguished physicians throughout the United States, and from absent members, expressing regrets, and sending greeting. They were ordered to be filed with the archives of the association.

The Superintendents extended invitations to the delegates to visit the several State Institutions, the Blind Institute, Lunatic Asylum, Deaf and Dumb Asylum, the new capitol, etc.; accepted with thanks.

Governor and Mrs. Ross invited the delegates and their ladies to a reception at the Mansion on Wednesday evening, and Dr. J. W. McLaughlin also tendered them a reception. A vote of thanks was recorded.

Dr. J. F. Y. Paine, Chairman of Section on Practice, read a valuable paper on fevers—

his report as chairman. On motion it was referred to Publishing Committee with instructions to publish it in the transactions. Adjourned.

AFTERNOON SESSION,

APRIL 26.

Section on Practice called: Dr. J. F. Y. Paine, Chairman, presiding.

The following papers were then presented:

First—Some hints on the action of Antipyrine, by Dr. O. L. Williams, of Chappel Hill. Referred to the Publishing Committee.

Second—Mental Alienation, a Sequel of Intermittent Fever, by Dr. E. Goldman, of Galveston. Referred to Publishing Committee.

Third—Babies and Their Troubles, by Dr. C. L. Gwyn, of Galveston. Referred to Publishing Committee.

Fourth—Spinal Irritation, by Dr. J. W. Carhart, of Lampasas. This paper evoked a spirited and interesting discussion, in which Drs. Williams, Dudley, and Talley participated. The paper was referred to the Publishing Committee to be published, and a vote of thanks was tendered to Dr. Carhart.

Fifth—Typho-Malarial Fever, by Dr. J. E. Ward, of Waxahachie. Referred to Publishing Committee.

Sixth—Pneumonia, by Dr. J. C. Milner, of Comanche. Referred to Publishing Committee.

Seventh—A case of Hæmatemesis of Obscure Causation, by Dr. C. F. Payne, of Comanche. Referred to Publishing Committee.

On motion of Dr. Daniel the papers of Drs. Gwyn and Goldman were also ordered to be published.

Dr. S. T. Lowry, of San Antonio, read a paper on "Dermatitis produced by the Administration of Quinine."

This case presented some remarkable features, and has become quite notorious. It is that of a lady—the wife of a railroad engineer, who had, on taking quinine, suffered with a rash, followed by desquamation. It

was in Dr. Wilkinson's hands, and the case is reported in one of the Texas journals. Dr. Wilkinson, it seems, disregarded the lady's injunction that she could not take quinine. When she fell into Dr. Paine's hands he did the same, and the administration of the drug produced the same results; afterwards Dr. Lowry had a similar experience, and related the case. The suffering was intense, and the desquamation was complete, the epidermis coming off in large flakes, casts of the part shedding.

Dr. Cummings and Dr. Hewson and Dr. West related cases of urticaria following the use of quinine; sulphate cinchonidia did not produce it, while in the above cases cinchonidia and quinine had the same effect. Dr. Lowry's paper was referred to the Publishing Committee.

Drs. Bowers, Coleman, and Lancaster jointly reported a case of "Typhlitis and Perityphlitis," caused by the ingestion of large quantities of acorns, in a child of twelve years—a most remarkable case. Referred.

These papers were discussed at length, and elicited much interest. As we can give only a synopsis of the four days' proceedings, the discussion is necessarily omitted—much to our regret. It will appear, however, in the transactions.

The Judicial Council made the following report:

"Motion unanimously carried to recommend that Dr. W. G. Hardin, of Terrell, on charges and specifications preferred, be expelled."

"Motion unanimously carried to recommend that Dr. F. W. Kaiser, of Flatonia, on charges and specifications preferred, be expelled."

"Motion made and carried to receive Dallas County Medical Association in affiliation with the admonition that they take better care of their society at home." Delegates, Drs. E. L. Thompson, J. A. Ewing, S. D. Thurston, and H. K. Leake.

This gave rise to some spirited discussion, and reasons were demanded for the reprimand to their society by the Dallas delegates. Dr. Chilton, of the Dallas County Society, explained that he had gone before

the Council and had given information in the interest of the society; that there were certain irregularities practiced by certain members, not members of the State Association, and which they had not been able to correct, and had asked for an admonition in the hope of causing said members to conform to the code. He instanced "Dr. So and So," of his society, whose card and sign were not in accordance with the code of ethics. This statement appeared satisfactory, but that part of Council's report to which objection was made, was, on motion, referred back to the Council.

The proposal to expel the above-named members also gave rise to discussion and objection. Drs. Osborn and Douglas objected to voting on the proposition to expel a member without knowing why, and a call was made for the evidence. This was produced, and by request was read from the Secretary's desk. The charges in Dr. Hardin's case were violations of the code of ethics, and the specifications were—manufacturing and selling in copartnership with a well-known irregular a patent medicine, under the name of the "Red Line Medicine Company," and for advertising in the newspapers. The charge vs. Dr. Kaiser, preferred by Dr. Paulus, a member of the Association and of the Judicial Council, and by Dr. Britton, also a member of Association, recited that Dr. Kaiser was in copartnership with a well-known quack, and that his friends had remonstrated with him in vain, pointing out the consequences, which he disregarded.

On motion, the report of the Council was adopted. Adjourned.

WEDNESDAY,
APRIL 27—
MORNING
SESSION.

The meeting was called to order by the President at 10 A. M. There was a great increase in the attendance, and the Clerks and Treasurer were kept busy with the register.

Communications were read from Dr. Hunter McGuire, of Richmond, Virginia,

and Dr. T. C. Osborne (an honorary member), of Cleburne; also, Dr. S. H. Stout, of Cisco, regretting their inability to be present; also, from the Galveston Medical Society, inviting the association to hold its next session in that city. The Mayor of Corpus Christi also sent a cordial invitation to meet there next year. Invitations to visit the new capitol, the John B. Hood Camp, and the University, were likewise received.

Dr. J. H. Sears asked to be excused from further services on the Judicial Council; Dr. G. W. Kerr, of Waelder was appointed in his stead.

The annual report of the Secretary, Dr. F. E. Daniel, was read, as follows:

SECRETARY'S REPORT. NINETEENTH ANNUAL MEETING TEXAS STATE MEDICAL CONVENTION.

AUSTIN, TEXAS,
April 26, 1887.
Dr. T. H. Nott, President Texas State Medical Association:

SIR—As Secretary *ad interim*, by your appointment to the vacancy occasioned by the death of Dr. W. J. Burt, I have the honor to submit the following report:

AUSTIN, TEXAS, April 26, 1887.
F. E. Daniel, M. D., Secretary *ad interim*, in account with the Texas State Medical Association.

1887.	CASH.	DR.
April, Dues from members:		
1886.		
August, Dr. E. L. Sessions .	\$ 5 00	
Aug., Dr. R. M. Swearingen .	5 00	
Sept. 17, Dr. W. W. Walker .	5 00	
Sept. 24, Dr. F. P. McLaughlin	5 00	
Oct. 6, Dr. A. D. Paulus . .	5 00	
Nov. 7, Dr. J. C. Jones . . .	5 00	
1887.		
Jan. 14, Dr. J. M. Litten . .	10 00	
March 22, Dr. T. S. Burke .	5 00	
Feb. Dr. T. H. Nott	10 00	
April 7, Dr. T. D. Wooten .	10 00	
April 7, Dr. W. A. Morris .	10 00	
April 7, Dr. C. R. Hargrove .	5 00	
April 10, Dr. F. Paschall, Mexico	10 00	
April 13, Dr. E. N. Wright, I. T	5 00	
April 13, Dr. J. L. Lankford, I. T	5 00—	\$100 00
1886.		
Nov. 1, Draft on Treasurer .	942 00	
Dec. 23, Draft on Treasurer .	25 00	
Sale of Transactions	6 20	
1887.		
From Publishing Committee .	255 00—	1,228 20
		\$1,328 20

1886.	PAID.	CR.
Nov. 30, Warner & Draughon,		
v. 2	\$1,089	65
1887.		
March, John Southgate, v. 3	26	50
1886.		
Nov., Express on 428	v. 5.	89 89
vols. at 21c . . .		
Nov. Express on 6		
vols. (1 pkg) . . .		40
Nov., Exp. Pacific, 86 vols.		
at 21c, v. 4	18	06
Aug., Postage, 200 circulars	2	00
Febr'y or March, Postage,		
Pres't Circular	10	00
Nov. Stamps, 76 vols. at 24c,		
v. 6	18	24
1887.		
April 8 and 13, Stamps, 428		
Report Surgery, v. 10.	29	95
1886.		
Nov. 15, Warner & Draughon,		
circulars and letter		
heads, etc., v. 1	8	50
Nov., Exchange on \$942 at		
¼ per cent	2	35
1887.		
April, Return Charges on 7		
vols. v. 9	1	89
March, Folding and stamp-		
ing circulars, v. 7	2	00
April, Stamps and Postals		
for office one year	7	00
April, Express on Books Dr.		
Cupples, v. 8.	35	
April, Cartage on Transac-		
tions, three times	75	
April, Balance	20	59
	<u>\$1,328</u>	<u>20</u>
1887.		
April 26, To balance.		\$ 20 59
April 18, Received since, R.		
A. Taylor, Millwood.	5	00
April 20, Received since, J.		
T. Harrington, El. P.	10	00
April 25, Received since, Dr.		
H. C. Ghent	5	00
April 25, Received since, A.		
Fly, Galv	5	00
Received since, W. M. Pow-		
ell, Albany	5	00
	<u>30</u>	<u>00</u>
By cash h'nd. Treas. with		
Dr. Harrington's Ap.	10	00
By bal. handed Treasurer	40	59
	<u>50</u>	<u>59</u>

E. and O. E. Austin, Texas, April 26, 1887.

With the exception of publishing and delivering the transactions for 1886, it will be observed the

expenses of the office have been unusually light. The correspondence has not been extensive, amounting to only a few hundred letters and postal cards. The only circulars issued from the office were those of the President to delinquents, in August (200), and the annual announcement and call for meeting, which were issued in February or March.

The delay in distributing the Report on Surgery was occasioned by want of funds, and the last were mailed on the 13th inst. About 450 copies were mailed from the Secretary's office, and some twenty-five delivered in Austin. The transactions were promptly mailed and sent by express, upon delivery, and a larger number has been distributed than any previous year.

Since last meeting it is my duty to report the death of seven honored and useful members—an unusually large mortality, and though I am aware the committee on necrology will do full justice to their memories, I can not refrain from at least a passing mention:

Dr. Joseph Willis, of Waco, died July 6th.

Dr. W. J. Burt, of Austin, died July 10th.

Dr. H. W. Moore, of Fort Worth, died September 24th.

Dr. Albert Welch, of Ferris, died September 22d.

Dr. J. T. Meek, of Ennis, died November 11th.

Dr. T. M. Stone, of Jasper, died September 14th.

Dr. James Haley, of Moffat, died February 11th, 1887.

The actual number of members in good standing at present borne upon the roll is 417. Of this number three have removed from the State, to-wit: Dr. W. H. Wilkes, late of Waco, Dr. B. M. Brown, Dr. Wm. Penny, of Galveston. Two have tendered their resignations herewith presented, to-wit: Drs. B. M. Brown and D. B. McMillan. Of those dropped from the roll for non-payment I find no record by my predecessor. Two who had formerly been dropped have been reinstated under the resolution adopted last year at Dallas: Dr. W. A. Morris, of Austin, and Dr. Frank Paschal, of Chihuahua, Mexico.

The roll of members is very imperfect, and incomplete. Until the present time names of members long since dead, or removed, are carried on the roll; while quite a number have changed their place of residence, without giving notice to the Secretary's office; and though repeated and urgent calls have been made, both by circular and through the medical journals for data to enable the Secretary to complete the record, as to place and date of graduation, when joined the Association, etc., it has been in vain; only very few have responded.

The failure to report change of residence, entails considerable trouble and some expense—inasmuch as valuable transactions sent by express or mail, prepaid, are returned with the remark, “No such person resides here,” and return charges are also paid by the Secretary. Seven instances of the kind occurred with the last volume of transactions—and one was in the case of a member who only joined at Dallas.

Of county and town associations in affiliation with the State Association there are only seventeen borne on the roll—though I believe there were one or two represented at Dallas whose names do not appear; and a singular dereliction on the part of somebody is, the name of not a single Secretary is given. In this connection, Mr. President, I hope I will be pardoned for calling attention to the requirement of our by-laws, which provides for annual reports from these auxiliary societies as to the membership, the work done, etc. In not a single instance has a report been made this year.

An inventory of the books in possession of the Secretary reveal the nucleus of what can be made by proper care and attention—a library:

There are fifty-nine volumes of State Society Proceedings in pamphlet form, and thirty-two volumes in cloth, of Transactions of State Boards of Health and State Medical Associations.

Of our own transactions I do not find on hand a single volume later than 1883 (one volume only, of 1883, in paper), and of the year 1884, there are in paper covers, 138; and in cloth cover, one; of the year 1885, there are in cloth covers, 108; of the year 1886, there are in cloth covers, 74; total 321; including the seven or eight returned volumes; and 125 copies of the Committee’s Report on Surgery. Thus, in all, there are some 537 books on hand, the property of the Association. These have been carefully arranged on shelves, and I would suggest that they are worth the cost of a book-case, or other means for their proper care. It would seem that no better use could be made of the back volumes of transactions than to give them to the new members.

Respectfully submitted,
F. E. DANIEL, *Secretary*.

Dr. Terhune moved that the Secretary’s report be adopted. Dr. J. B. Robertson moved that it be referred to a special committee of three. Carried. Drs. R. T. Knox, F. M. Pitts, and A. A. Terhune, were appointed. They carefully examined the report, and finding it correct in every particular, so reported.

The report of the Treasurer, Dr. J. Larendon, was read as follows:

TREASURER’S REPORT.		HOUSTON, TEXAS,
		April 20, 1887.
Dr. J. Larendon in account with Texas State Medical Association.		
1886-7.	RECEIPTS.	
April 21,	Balance on hand, last report . \$	45 52
April 20,	Annual dues collected	1,894 25
		\$1,939 77
April 20, 1887,	To Cash on hand	20 07
1886-7	DISBURSEMENTS.	
April 29th,	Cash paid Collective Invest-	
	igation Committee, per order . . . \$	42 75
April 29th,	Cash paid for Stationery	5 50
April 30th,	Cash paid Secretary salary	200 00
	Cash paid Publishing Committee for	
	work of 1885	200 00
	Cash paid Treasurer	100 00
	Cash paid Postage Stamps	3 00
June 18th,	Cash paid Dr. Geo. Cupples	
	for work on Surgery, \$204.00; P. O.	
	M. O. fee, \$1 35	295 35
August 16th,	Cash paid Dr. J. R. Briggs	
	for Prize Essay	100 00
	Exchange on above	45
Nov. 1st,	Cash paid F. E. Daniel, Chair-	
	man Publishing Committee	942 00
Dec. 23d,	Cash paid F. E. Daniel Chair-	
	man Publishing Committee	25 00
	P. O. M. O. on above	15
April 19, 1887,	Cash paid A. C. Gray,	
	printing blank receipts, 1,000 . .	5 50
	Balance Cash on hand	20 07
		\$1,939 77

Respectfully submitted,
E. and E.O. J. LARENDON, *Treasurer*.

On motion, the report was referred to same committee. On examination it was found correct, and so reported. Dr. Pitts complimented Dr. Larendon on the report, and moved that he be paid \$100 for his services. Amended by Dr. J. B. Robertson, by adding \$10 for postage. Carried.

The following report of the Publishing Committee was submitted by Dr. F. E. Daniel, chairman:

REPORT OF PUBLISHING COMMITTEE.	Dr. T. H. Nott, <i>President</i> Texas State Medical Association:
SIR.—Your Committee on Publication beg leave to submit the following report:	

The volume of Transaction for 1886, eighteenth annual session, is herewith presented.

Seven hundred volumes, of seven hundred pages each, were issued, and a copy was sent to every member of the Association whose name appears on the roll; to every county medical association in affiliation, whose secretary's address is known; to most of the secretaries of State Medical Associations, and State Boards of Health; to the officers of other medical and sanitary associations, the American Medical Association and the American Public Health Association, United States Government medical officers; to many medical colleges, and to the leading daily newspapers in the Southern State, and to nearly all of the leading medical journals; also to the advertisers—in all, some six hundred and thirty volumes; a larger number than have ever heretofore been distributed from the Secretary's office.

The printing was done by Messrs. Warner & Draughon, and the binding by Mr. John Southgate, all of Austin, according to contract with the first named, at a net cost of \$1,089.65, or \$1.55 per volume.

Of this amount \$861.15 in the treasury was available; the balance being required to prepay postage and express charges. The postage was 24 cents per volume, weighing 48 ounces (3 pounds), and the express charges (special rate to committee) was 21 cents per volume. The balance of the amount was advanced by the committee, as per statement below:

Dr.—Voucher No. 1, Warner & Draughon bill, printing 700 volumes	\$1,089 65
Voucher No. 2, John Southgate's bill for wrapping papers, printing same, labor, twine, pasting in 1,400 slips, etc	26 50
Total	\$1,116 15
Cr.—Voucher 1, By cash from Secretary	\$861 15
Voucher 2, By cash by Publishing Committee	255 00—1,116 15
Balance due Publishing Committee	\$ 255 00

The manuscript of the Report on Surgery was withdrawn from the hands of the Publishing Committee by the chairman of special committee on said report, who made special contract with Messrs. Warner & Draughon; he also claimed the privilege of reading the proofs, and of supervising the work. The Publishing Committee are, therefore, entitled to none of the credit for the excellent publication.

The amount of manuscript placed in the hands

of the Publishing Committee was immense—far exceeding any previous year; and the labor of classifying and arranging it, revising, and correcting clerical and other errors, and putting it in shape for the press, involved no small amount of time, patience and labor; all of which was shared by the lamented Burt up to the time of his death; and the subsequent reading and revision of the large amount of proof was a labor of many weeks. The work speaks for itself. Of course it is not perfect; but we believe it is as nearly free from typographical errors, and other blemishes, as most works of the kind, and as three careful proof-revisions, in very trying weather, could well make it.

It is a source of much gratification to your committee, and, we hope, of pardonable pride, to observe the very general favor with which their labors have been, everywhere, received; the palm for excellence—not alone for the mechanical part of the volume, but for the high scientific value of its contents, has been, by the medical press of the country, with one accord, awarded to the Transactions of the Texas State Medical Association.

Believing that the members will share that feeling with the committee, and that it will stimulate them to renewed efforts, your committee hope to be pardoned the seeming vanity which prompts them to submit herewith a few brief extracts from the many kind and complimentary notices of the work which have appeared in the medical journals of the country. The journals of nearly every State have spoken kindly of our humble but earnest labors, and in praise of the enterprise, and the scientific ability of the Texas medical profession. [Comments of the press are omitted for want of space.]

Thus, the journals from nearly every State in the Union have been pleased to compliment the profession of Texas and their scientific work as exemplified in their published Transactions.

Respectfully submitted,

F. E. DANIEL, Chairman,
R. M. SWEARINGEN,
J. W. McLAUGHLIN.

AUSTIN, TEXAS, April, 1887.

Dr. Daniel also made a verbal report, stating that he and Dr. Burt had received each \$146 from the advertisers, and explained the difficulties attending the publication of the volume.

The report was adopted, and, on motion of Dr. G. W. Christian, a vote of thanks to Dr. Daniel was recorded; and, on motion of Dr. Swearingen, \$100 was voted from

the treasury as additional compensation for his time and labor in editing and publishing the volume of Transactions.

Dr. S. D. Thurston, of the Committee on Prize Essays, rose to a point of personal privilege, asked to be permitted to make a statement in regard to the matter and manner of making the award of the prize last year. He said that the published article of Dr. Wallace, one of the committee, in *Daniel's Texas Medical Journal*, reflected unjustly on the committee, and called for a reply.

On motion of Dr. A. P. Brown, the rules were suspended, and Dr. Thurston read an able and elaborate article defending the action of the committee, and answering Dr. Wallace on all points, and describing the manner in which the award was made.

On motion of Dr. Becton—after several motions had been made and amendments offered—the following resolution, which embodied the main idea, was unanimously adopted :

Resolved, That the personal explanation of the Committee on Prize Essays be accepted as entirely satisfactory to the Association, and that their manner of awarding the prize be, and is hereby, in all things, approved. E. P. BECTON.

Dr. Geo. Cupples, Chairman of the Committee on Collection of Surgical Cases, made the following

REPORT ON SURGICAL CASES.	T. H. Nott, M. D., President Texas State Medical Association:
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SIR.—Your Special Committee on Surgery have the honor to submit herewith their annual report for 1886, comprising 1,046 operations, which, added to 4,293 operations included in the report presented at the last meeting, make an aggregate of 5,339 operations presented.

It may be interesting to note here, as an evidence of the correctness and accuracy of the individual reports, that the mortality in the first report furnishes a ratio of 8.15 per cent, whilst the present report furnishes a death rate of 7.93 per cent.

The present report comprises many operations not heretofore included and not strictly belonging to this year, and comprises a large number of the less dangerous operations.

In preparing this report the same method was followed as on former occasions ; 3,000 blank forms were distributed to physicians throughout the State, and a very large correspondence was entered into in connection therewith; seventy-four reports were received from sixty-six surgeons, which are embodied in the document now presented for your acceptance.

Some explanation is due to the Association of the delay which occurred in the printing and distribution of the report of 1886. Certain difficulties arose regarding the printing of the report as ordered by a vote of the Association. The difficulties were met and surmounted by the action of a few members, who provided for the printing of 1,000 copies. In doing this, however, they were hampered by a contract entered into by the publishing committee for the printing of the entire Transactions, which caused great delay and many typographical errors, due to the unfaithful execution of the contract by the printers.

Notwithstanding these drawbacks, 400 copies were forwarded in January by the committee to the individual reporters and to many eminent men in the profession in the United States and in Europe, from many of whom have been received the most gratifying expressions of approval and commendation of the scope and value of the work.

As a result, the surgeons of Texas are to-day regarded and treated as no unworthy members of the great republic of work.

It is to be hoped that the work will be continued, and, to use the word of a reviewer of the report, that a lesson will be learned by the other State Medical Associations from the action of that of Texas.

From the nature of the undertaking, it became necessarily the work of one member of the committee, who is alone responsible for errors contained therein, and who gratefully takes occasion to acknowledge the intelligent and indefatigable assistance rendered by his friend, Dr. E. H. Tyler, of San Antonio, without whose aid this arduous and laborious undertaking could never have been accomplished.

All of which is respectfully submitted.

[Note.—Four hundred and fifty copies were subsequently mailed to members by the Secretary, and the balance sent to the chairman of the committee.—ED.]

On motion, the report was adopted, and a vote of thanks was tendered to Dr. Cupples.

Dr. Robertson moved that Dr. Cupples be reimbursed for the expense of publishing the extended report on surgery. Carried.

Dr. Cupples begged to decline the reimbursement.

Dr. H. L. Taylor, delegate to the Pharmaceutical Association, asked for further time in which to make his report. Granted.

Dr. Kilpatrick, chairman of the Committee on Necrology, not being ready to report, was given further time.

Vice-President Parsons, who was occupying the chair, at this point suspended the regular business and introduced Dr. W. H. Saunders, Professor in the Alabama Medical College, and a representative from the Alabama Medical Association to the Texas Medical Association. Upon being presented, he made a brief address, which was of fraternal greeting and cordial fellowship. His remarks were fitting and appropriate, and were received by the Association with generous rounds of applause.

Dr. J. B. Robertson, addressing Professor Saunders, bade him welcome to the bosom of the Association, and thanked him for his coming, at the same time complimenting in high terms the sister Association which was so ably represented here in his person. Dr. Becton also made a highly complimentary speech, eulogizing the Association from which Dr. Saunders was a representative.

Dr. H. W. Dudley offered a resolution providing for the severance of venereal diseases from the surgery section, and the creation of a section upon those diseases. A motion to refer to the Committee on Constitution and By-laws was superseded by a motion to table, which prevailed.

Dr. Cummings offered a resolution that all applications for membership, and all charges and specifications against members, be submitted in writing to the Association, and read from the Secretary's desk before reference to committees. The resolution was, on motion, referred to the Committee on Constitution and By-laws.

Drs. Mellou and McManus, of Brownsville and Matamoras Medical Association, offered a resolution providing for a change

in the Constitution and By-laws so as to admit a physician to membership *in absentia*, upon the showing of the proper qualifications therein specified. Referred to Committee on Constitution and By-laws. Under the by-laws this must lie over a year.

Charges were preferred by Dr. J. J. Dial against Dr. M. K. Lott, of Belton, based on a pamphlet entitled "A Chapter in Medical Ethics, as practiced by Dr. H. C. Ghent, by M. K. Lott," which pamphlet was said to have been distributed to the laity. Dr. Pitts moved to refer to Judicial Council, together with the pamphlet.

Dr. Lott rose to a point of personal privilege, and said he protested against being tried by twelve men from whose decision there is said to be no appeal.

The question as to the finality of the action of the Judicial Council came up, and the chair ruled that the decision of the Council is not final with reference to the last clause of first paragraph of article referring thereto—attention having been called to same by Dr. Talley. At request of President, V. P. Parsons took the chair.

Dr. Talley moved a substitute for Dr. Pitts' motion so as to have charges and specifications read in open session before being sent to Judicial Council. Lost.

Dr. Cummings asked if a member against whom charges had been preferred, desired it, could he not have the charges read in open session?

The chair decided in the negative. Dr. Talley appealed from the decision of the chair, and by a rising vote the chair was sustained.

The resignation of Dr. M. R. Brown, late of Galveston, now of Chicago, was read and accepted. Meeting adjourned.

AFTERNOON SESSION, The Association met
SECOND DAY, at 3 o'clock, Vice-
APRIL 27. President Chilton in the chair.

The Section on Ophthalmology and Otol-ogy was called, Dr. T. J. Tyner, chairman, presiding. Dr. Tyner read a report review-

ing the work of the year in that department of science. The paper was referred to the Publishing Committee with instructions to incorporate it in the minutes. Dr. Tyner was then excused to attend a sitting of the Judicial Council, and Dr. Chilton continued to occupy the chair.

The first paper presented was upon Iritis, by Dr. Chilton. It was ably discussed by Dr. Saunders, who was specially invited to participate in the debate, and by Drs. Nott, Pope, Leake, A. P. Brown, Jones, of Gonzales, Dudley and Chilton. It was referred to the Publishing Committee.

Dr. Becton was on motion excused from further attendance on the session, having a call home to attend an important case.

The second paper, "A Case of Neuro-Retinitis," by Dr. J. H. Smith, of Dallas, was about to be read, when a point of order was made that the section had already more than consumed its allotted time, two hours. The chair decided the point well taken. Several papers under this section were not reached, one by Dr. J. R. Briggs, on the "Syringe in Ear Disease." All papers will be referred to the Publishing Committee, whether read or not.

The Section on Surgery was then called. Dr. Osborn, chairman of the section, announced that he had a report to make, but as it was lengthy and would consume a considerable amount of time, he would content himself by reading the captions of a number of cases. This he did, and the report was referred.

Under this section a paper entitled "A Case in Conservative Surgery" was read by Dr. J. D. Bass, and elicited a spirited discussion, which we are obliged to omit. It was discussed by Drs. Talley, Brown, Sears, Paine, of Comanche, and others.

Dr. J. R. Briggs sent up to the Secretary's desk a document addressed to the Secretary, with the written request to read it at once. The Secretary, Dr. Daniel, proceeded to read the following:

"To the Judicial Council of the Texas State Medical Association, Greeting."

GENTLEMEN:

From certain facts herein specified, it becomes my duty as a member of the Texas State Medical Association, to present to you for your wise and just consideration, the following charges and specifications against one of our members, Dr. F. E. Daniel, of Austin.

1st. I hereby allege that Dr. F. E. Daniel did, contrary to the desire or request (by resolution or otherwise) of the Texas State Medical Association, and upon claims utterly groundless, assume for his journal (Daniel's Texas Medical Journal) the high prerogative of "the Official Organ of the Texas State Medical Association." I *protest* against such presumptuous arrogance, and deny the right of any Journalist to unauthoritatively make such false and vain statements. I assert that outside of its "Transactions," the Texas State Medical Association *has no* recognized "*official organ*," and that all claims to the contrary are born of conceit and brought forth to gratify a vaulting ambition, to the detriment of the Association at large, and its members individually.

I further assert, that his false assumption, together with other efforts at self-aggrandizement, has reflected discredit upon the Association instead of upholding its principles and preserving harmony in our ranks.

Therefore as a member of the Texas State Medical Association, I ask that Dr. F. E. Daniel be brought before your committee to answer to the false statement made and published by him, that his Journal was the "official organ" of the Association. I further ask, that his liberty under the guise of such egotistical and assumed prerogative to criticise and cast personally discredit and mortification on two of our ex-presidents be *questioned*.

2d. I desire to respectfully call your attention to page 28 in the "Transactions" for 1885 where the following language occurs: "The committee, by allowing five pages for advertising were enabled to save the Association \$100, or fourteen cents per copy in the price of printing the Transactions." On investigating the matter by writing to the treasurer, and obtaining information from other sources, I find as a *matter of fact* that the \$100 referred to was not saved the Association; that the Association was not beneficiary of this \$100, or *any part thereof*! I further assert that this \$100 was appropriated by Dr. F. E. Daniel to his own personal benefit, which was contrary to his statement of the facts in the case, and also at variance, with business principles, honesty, and the confided trust in him reposed. I desire to say

here, that for 1885 the Transactions was printed at Fort Worth, and was under the direct management of Dr. F. E. Daniel, and that this charge can not in the least reflect upon our lamented Dr. Burt.

I believe that such a precedent of which Dr. F. E. Daniel has been guilty will, if not speedily reprimanded, lay the foundation for subsequent misappropriations of the funds belonging to our Association, and therefore ask that you justly and impartially consider this breach in all its relations, for the good of all concerned and to the injury (unjustly) of no one!

3d. I assert also without the possibility of successful contradiction, that for 1885 the printing of the "Transactions" only cost \$400, *but*, that Dr. F. E. Daniel induced the printer—Mr. J. K. Millican—to send in the bill for \$475; he (Dr. Daniel) appropriating the \$75 *over charges* to *himself*, thereby bleeding the treasury a *second* time! That the "\$100" gotten by Dr. Daniel for advertising, and the \$75 over charges, did not constitute his salary, is shown by the fact that at the last Houston meeting (1885) the publishing committee were paid \$200 for their services, of which amount Dr. Daniel received \$150. Thus summed up we find, that Dr. Daniel received, *in three different ways* \$325 for the year of 1885, and that the \$100 and the \$75 *really, and in fact, justly belonged* to the Association. While *it is a fact*, that Dr. Daniel was only *one* of the publishing committee, nevertheless it can be proven to your satisfaction, that *HE* alone received and misappropriated the \$175. If Dr. Daniel at the time, thought himself justifiable in keeping the \$100, and the \$75, for *his services*, he should at the next meeting in Houston, when the subject of paying the committee was up before the Association, have made the statement to that body, that he had *already* received for his services \$175. But Dr. Daniel did not make any such statement or explanation, but on the contrary urged with his friends, that he be paid a second time, or receive additional sum, which was granted by the Association, *which body was ignorant* of the fact that he (Dr. Daniel) had been beneficiary of ever so small amount for his services.

Believing that such conduct is *dishonest*, and unbecoming of one of our members, and that the precedent is a dangerous one, I submit these facts to your body, for a just and equitable consideration.

4th. (As a journalist Dr. Daniel has—under *false colors*—wrongfully, and *maliciously*, assumed the right to criticise the Association in its selection of its presidents; such criticism being engendered because he (Dr. Daniel) was not elected

president at our last meeting; thereby manifesting a vindictive and bitter retaliation. It is not hard to see that any remark made by a journalist in our State derogatory to the high scientific, and honorable standing of our members, and officers will throw discredit upon the Association as a scientific body, and lower us in the eyes of the scientific medical world at large).

5th. (It can, in my *opinion*, be *fully sustained*, that Dr. Daniel is a "*fire brand*," a "*stirrer up of strife*," and a "*fomentor of discord*," and that his retention in our body, can but create in the future, as in the past, discord and perpetual trouble in our ranks).

With the following explanation I close these charges, and desire the committee, or Judicial Council, to note the *fact*, that I have strenuously avoided bringing any *personal* differences, existing between Dr. Daniel and myself, before your Council; *claiming as I think right and proper*, that the above grievances exist *ALONE between Dr. Daniel and the Texas State Medical Association*. I have no desire to annoy your Council with any *correspondence* between myself, Dr. Daniel and others, as such "*PRIVATE*" affairs should have *NO* place in your Council, to take up your valuable time, and infringe on your labors in behalf of the *fundamental interests of the Association*.

Having been informed, however, from reliable sources, that Dr. Daniel will in his defense, attempt to *recriminate* by showing you my *letters* to him and others (or get others to do so) I make the following statement in justice to myself:

I wrote *very severe* and *abusive* letters to Dr. Daniel and others, who were trying to *cover up his wrong acts*, my *sole* object being to observe, if by such *bitter letters* he (Dr. Daniel) could be made to make *plain*, and show his *undoubted* guilt. I was handsomely rewarded in my efforts, as was shortly afterward shown, by Dr. Daniel's rapid (and to others unexpected) visit to Fort Worth, to try and *patch up* and *smooth over*, his criminal acts. Upon receiving my bitter letters of accusations, Dr. Daniel went to the printer at Fort Worth at *once*, to try and get him, Mr. J. K. Millican, to give me a letter of retraction, which letter is in the hands of your chairman, Dr. H. M. Oliver. I claim I had a right to correspond in any way I thought proper, with Dr. Daniel or any one else (who was attempting to shield him) and that the detective method used by me was for the benefit of the Association, and could not possibly do me any good, *personally*. Having known for nearly a year, or at least *strongly suspected* that the funds of the Association had been misappropriated. In order to put the matter beyond doubt, I resorted to means, which

would not under less aggravating circumstances, have been proper and just. While I regard re-crimination a poor method of ridding one's self of crime; *nevertheless*, if your council think (as will be charged against me) that I was not justifiable in using such *severe* means for the detection of this crime, I ask that you immediately *turn me out of your honorable and scientific body!* This I say, because I assure you that the letters I have written to Dr. Daniel and *others*, together with conversations I have had on the subject will be presented against me as evidence of my "malicious" (to Dr. Daniel) conduct. I ask that your council reject all such "private" correspondence to Dr. Daniel and *others*; but if you think it wise to entertain such an elaborate correspondence, I then ask the liberty of presenting about two hundred pages of such letters written me by Dr. Daniel and *others*.

In conclusion I must say to you, that I expect to be accused of "*persecution*," and that *other* matters may be rung in, in *lieu* of defensive evidence. I pray you not to allow me or any one else, among you with personal matter, but let the case stand upon the evidence which I shall point out to you in *person*, if allowed to so do by your council. I fully recognize the results of this step I have taken in presenting such grave charges against one of our members, and fully know that the matter will be a *very disagreeable and unpleasant one*, but should I *shrink* from my duty, with such facts in my possession, I feel I would be as guilty as Dr. Daniel, were I not to present them. Thus gentlemen I close this explanation, and put myself in your hands, together with these papers, and ask that you be as merciful as the *demands* of the *case*, and *justice* will *tolerate!* If at any time during your sessions, my presence may be found necessary, command me.

Faithfully and fraternally yours,

J. R. BRIGGS, M. D.

Dr. Daniel rose to a point of personal privilege and asked to be permitted to speak in his defense, a few words. The Chairman, Vice-President Chilton, ruled him out of order. A motion was made by Dr. Tyner that Dr. Daniel be permitted to reply. Ruled out of order. The matter was pressed by several members, and finally Dr. Briggs moved that Dr. Daniel be permitted to reply to the charges. Permission being obtained, Dr. Daniel said:

"I deny any criminality in the matter charged, and repudiate it in toto. I am prepared to prove

the entire allegations, in every particular, as false as hell, and to vindicate my character, which for twenty-five years as a physician no man has ever dared to assail! I am not only prepared to disprove the charges in every particular, but also to show that it is *not* a conscientious charge brought by one brother against another, solely for "the protection of the profession," as asserted—but a *malicious, vindictive, blood-thirsty* demand for *revenge!!* for an assumed injury; for the gentleman says that he has been in possession of the "information" a year. In that time he has overwhelmed me with "friendly" letters—pledging life-long friendship and lasting gratitude for services therein acknowledged—and all signed "your true friend"—yet, not until a short time ago, when he assumed that I had aided Wallace and others in criticising his "prize essay"—did his "conscience" suggest that it was his "duty" to bring such charges. I demand a thorough investigation into all my official acts."

The document was referred to the Judicial Council. The Judicial Council next day reported as follows:

"We, the Judicial Council of the Texas State Medical Association of the 19th session, held at Austin, April, 1887, after full investigation of the charges against F. E. Daniel, M. D., do exonerate him from any criminality, or intentional criminality, in the alleged misappropriation of any funds in his hands. In regard to the funds realized from the advertisements published in the Transactions, and appropriated to his own use, we believe he acted on what he conceived to be good and sufficient reasons. Furthermore, we exonerate him from all other charges brought against him."

[Signed].

M. H. OLIVER, Pres.

J. W. GARNETT, Sec.

Dr. Daniel thanked the Association for this act of simple justice, and taking occasion to refer to one point of complaint, said:

"With reference to the editorial in last July's issue of the *Journal*, "Misguided Members and the President's Address," I desire to say that I have disclaimed through the *Journal*, and I here now on this floor disclaim any intentions to reflect upon the personal, or professional character of either Drs. Bector or Brown, or to injure them. My language and my animus were both misunderstood; and whatever construction it may have been thought susceptible of, it was far from my intention to cast aspersions on them. I attributed to them simply an error of judgment in referring to the subject of religion and evolution in their

addresses, and thought it was not only out of place, but calculated to engender strife. When a member, three years ago, introduced the subject, I foresaw an element of discord; when a year later, Dr. Brown referred to it and replied to certain remarks, it seemed the Association was drifting on to dangerous ground, and, when still later, Dr. Becton, in his presidential address, referred to certain members who held adverse views to his own as "misguided," I thought it was time for the *Journal*, which was established for the declared purpose of promoting organization of the Medical profession of Texas, and its advancement and elevation, to sound a warning. Such was conscientiously the motive of the editorial—to warn the Association of the danger of continuing the discussion of a subject which all must recognize as foreign to the objects and dangerous to the peace and harmony of the body; and, while I make this explanation, in justice to myself and to the distinguished gentlemen who feel aggrieved at my remarks, I have nothing to retract as to the subject matter of the article, i. e., that "the majority of the profession deprecate the introduction and discussion of a religious question in the Association meetings;" and that no one is authorized to speak as to the religious sentiments of the body. I am much pleased to state that after a conversation with Dr. Becton in which the above, in substance, was said, Dr. Becton expressed himself satisfied, and assured me of a complete restoration of friendly relations between us—of which I don't hesitate to say I feel proud; and, having done all that a gentleman could be expected to do, or say, in the premises, I only wish that I was able to say the same with regard to Dr. Brown, that he is again my friend. (Dr. Brown and Dr. Becton were both absent).

Pending motion to adjourn, Dr. Clark moved that Dr. Briggs be expelled. Motion seconded by several. Ruled out of order, and motion to adjourn prevailed.

THURSDAY, APRIL 28, Meeting called to order by President Nott. Minutes of yesterday read and approved, with corrections.

The Committee on Collective Investigation of Disease was called, and chairman Sam R. Burroughs read his report (omitted for want of space), showing the kind and amount of work done in that field, and the expenditures thereto.

On motion of Dr. Sears, the report was adopted, and the committee discharged.

Dr. Tally, delegate to Foreign Medical Association, made an interesting verbal report, contrasting our own methods with those of other societies.

Dr. Cupples, chairman of the Committee on Legislation, submitted the following:

REPORT OF COMMITTEE	Dr. T. H. Nott, M. D.,
ON LEGISLATION.	President Texas State Medical Association:

SIR.—Your Committee on Legislation have the honor to report, and that with great regret, that no measure has been devised which, while beneficial to our people, could present any hope of acceptance by a singularly impracticable and unpractical legislature. In consequence, it was deemed more prudent, in view of action in the future, to avoid defeat, by inaction, than to court it by any appeal to the legislature in its then temper. And in this connection, your committee would respectfully suggest that naked reason will never secure from a legislative body the recognition due to the medical profession in the interest of the public health, and that the pressure of public opinion must be invoked to reach minds otherwise inaccessible.

For this end, your committee proposes that an attempt, continuous, not intermitting, be made to enlist every physician in our State as an advocate of a law to organize boards of health, and of kindred measures—and that each one of these physicians, in his own circle of friends and patients, enlighten the people on the paramount questions of vital statistics and preventive or State medicine.

Respectfully submitted,
CUPPLES, *Chairman.*

The Nominating Committee was organized, and elected Dr. J. B. Robertson chairman. On motion, the meeting was postponed till the report of the Judicial Council had been made.

Dr. Sears moved that in future advertisements be excluded from the pages of the Transactions, and that the Publishing Committee be paid \$300 out of the Association treasury for time and labor in the compilation. Carried.

The report of the chairman of Section on Obstetrics, Dr. J. W. McLaughlin, was, by request, read by title and referred.

The report of the chairman of Section on

Electro Therapeutics, Dr. F. T. Paine, was read, "Three Years Work with Electricity in the Treatment of Disease." Referred.

A handsome volume of Dr. Jos. Jones' Memoires was presented by the author, through Dr. Q. C. Smith. Accepted with thanks, and Secretary instructed to acknowledge receipt.

Report of chairman on Section on Dermatology, Dr. H. L. Taylor, was called for. Dr. Taylor made a verbal report, and promised to reduce it to writing in time for the Transactions.

Dr. Dudley moved to change the sections so as to throw venereal diseases under the head of Dermatology; and Medical Botany under head of Chemistry. Laid on table.

Adjourned till 3 P. M.

THURSDAY, APRIL
28—AFTERNOON
SESSION.

Meeting called to order. President Nott in the chair.

The President handed the Secretary the following charges by Dr. S. J. Dial against Dr. J. R. Briggs, which, by order, was read and referred to Judicial Council.

To the Judicial Council:

GENTLEMEN.—I herein present charges against Dr. J. R. Briggs, for his action in preferring charges against Dr. F. E. Daniel, and ask that he be either expelled or exhonored from your body at once. I do this both in justice to the Association and Dr. Briggs and his friends.

Respectfully, J. J. DIAL.

Dr. Daniel declined to appear or give evidence against him, and the Judicial Council reported as follows:

The Judicial Council of the Texas State Medical Association having investigated the charges against Dr. J. R. Briggs, respectfully submit: That we do not deem it a crime for one member to prefer charges against another in this Association; and, as we can find no other specification in the charge, hereby recommend his exhonoration.

M. H. OLIVER, *President*.

J. W. GARNET, *Secretary*.

On the charges vs. M. K. Lott, the Judicial Council reported as follows:

Charges and specifications, after being investigated, were sustained, and the Council recommend such action as the Association may deem proper.

M. H. OLIVER, *President*,

J. W. GARNETT, *Secretary*.

Dr. Lott denounced the charges as false, and said he had taken every legitimate means of settling the difficulty between Dr. Ghent and himself, and the profession at Belton would not settle it, and that he had appealed to the only recourse left him.

A motion to expell Dr. Lott, by Dr. C. F. Paine, was lost, 82 yeas and 42 nays (tally kept by the Journal clerk of the Legislature). A motion to replemand was lost, and a motion to suspend for one year prevailed unanimously.

Section on Obstetrics was called. Dr. McLaughlin being excused, Dr. Fred Terrell, Secretary, occupied the chair.

Dr. J. D. Osborn read a paper on "Puerperal Eclampsia treated Hypodermatically."

The paper was discussed at considerable length and elicited much interest, and developed several modes of treatment as practiced by members. Dr. O. L. Williams had not seen a case which did not yield to timely and sufficient blood-letting, while others condemn that method and pinned their faith to veratrum. Dr. Sears had faith in saturated solution of Epsom salts in hot water, after quieting patient with chloroform. Dr. Tally believed in building up the patient in anticipation, by tonics and nutritous diet, and argued that the convulsion was a result of a dyscrasia, or debility. D. Enochs said all his patients die in spite of treatment. Dr. Osborn said he could diagnose Eclampsia by the presence of albuminuria. Dr. Bowers gives 5 to 10 gtt: doses of verat viride ter die. Dr. Osborne's paper referred with instructions.

Dr. H. A. West read a valuable paper on "Observations on two cases Placenta Previa." Referred after discussion with special instructions.

Dr. Bowers read a paper, "Complicated Cases of Labor." Referred.

A number of other papers under this section were read by title and referred.

Section on Gynecology called. Dr. F. H. Tucker, chairman, presiding.

Dr. O. Eastland read for Dr. B. E. Hadra,

a paper on "Trachœlorrhaphy, and some Suggestions for its Modification." Discussed and referred.

A paper by Dr. Pennington on "Removal of Uterine Polypi," was read and referred.

Section on Surgery recalled by permission. Dr. J. C. Jones read a paper giving an account of a Laparotomy for Intestinal Obstruction, etc. Referred with instructions.

Papers were read by Drs. J. P. Oliver, E. L. Ward, and L. B. Creath, and referred. Dr. Tucker read a paper on Adherent Prepuce and exhibited a specimen of monstrosity.

Dr. T. D. Wooten delivered an address before the Association Thursday night in the University. Dr. J. F. Y. Paine moved a vote of thanks, and that the address be published in the Transactions. Carried.

Dr. R. P. Tally preferred charges against Dr. H. C. Ghent, for conduct unbecoming a gentleman and a member, and specified certain letters which the mover characterized as "infamous and libelous," and that they were for the purpose of securing the presidency. Referred to a special Judicial Council, composed of Drs. R. G. Williams, P. J. Bowers, J. C. J. King, F. M. Pitts, J. F. Y. Paine, A. M. Douglass, T. J. Tyner, H. K. Leake, J. W. McLaughlin, O. I. Halbert, J. L. Carter, W. A. Durringer, the original Council having adjourned and same gone home.

After examination the Judicial Council reported as follows:

We find the charges and specifications against H. C. Ghent, M. D., flimsy and puerile and entirely unsustained by the evidence produced, and absolutely unworthy of consideration. We exonerate Dr. Ghent of even a suspicion of guilt.

J. W. McLAUGHLIN, *President*,
T. J. TYNER, *Secretary*.

On motion, the Committee on Prize Essays was discharged. Adjourned.

Thursday night at 8 o'clock, Dr. Nott, the retiring president, delivered his address to a large and select audience of ladies and gentlemen, together with a fair attendance of members. We regret that we can not

publish the address in this issue. Dr. Wooten's address followed.

FRIDAY, APRIL
29TH. MORN-
ING SESSION.

Meeting called to order. President Nott in the chair. Secretary absent temporarily; Dr. Osborn acted for him. On motion, reading minutes was dispensed with.

Dr. Osborn, of Committee on President's recommendations, reported, advising the adoption of the suggestions submitted.

Dr. Tally read his report as chairman of Committee on Constitution and By-laws appointed at Dallas (report not in Secretary's hands). Dr. Osborn moved that the committee be continued, and that the report be published in the next volume of Transactions, and made the special order for first day of next meeting. Adopted.

The nominating committee reported the following officers for the ensuing year:

President, Sam. R. Burroughs, of Leon County; First Vice-President, R. T. Knox, of Gonzales; Second Vice-President, A. M. Douglass, of Hill County; Third Vice-President, A. A. Terhune, of Jefferson; Secretary, F. E. Daniel, of Austin (5 years); Treasurer, J. Larendon, of Houston (5 years).

Judicial Council: P. C. Coleman, R. Rutherford, M. Knox, R. C. Nettles. (New members.)

Section on Practice, C. M. Ramsdell, Chairman; Section on Obstetrics, J. J. Dial, Chairman; Section on Surgery and Anatomy, A. W. Fly, Chairman; Section on Medical Jurisprudence, etc., H. A. West, Chairman; Section on State Medicine, R. M. Swearingen, Chairman; Section on Gynæcology, G. W. Christain, Chairman; Section on Ophthalmology, B. A. Pope, Chairman; Section on Dermatology, H. W. Dudley, Chairman; Section on Electro Therapeutics, R. W. Knox, Chairman.

Committee on Publication—F. E. Daniel, Chairman; R. M. Swearingen, J. W. McLaughlin.

Committee Collection Surgical Cases—

Geo. Cupples, Chairman; E. J. Beall, J. M. Pace, B. F. Eades, D. F. Stuart, A. G. Clopton.

Delegates to Associations—omitted till next issue.

Committee of Arrangements—J. F. Y. Paine, Chairman, to select committee. Place of meeting, Galveston, fourth Tuesday in April, 1888.

Committee on Prize Essays—omitted till next issue.

Committee on Revision Constitution and By-laws—omitted till next issue.

By resolution of J. R. Johnson, the Publishing Committee is authorized to reject any papers that in their judgment should not be published in the Transactions, independent of previous instructions. Adjourned.

During the session fifty-two new members were admitted, and several new county associations—names of all of whom and which will be given in next issue.

Dr. Florence E. Collins, of Austin, Secretary of Travis County Medical Association, was elected a member by a rising vote.

The Opera of Balshazzar, given by the Austin Musical Union (amateurs), under contract with the Committee of Arrangements for the especial entertainment of the delegates, was largely attended and much enjoyed. The several receptions, and the entertainments at the University and other places were also much enjoyed; and delegates returned home much pleased with the nineteenth annual convention of the T. S. M. A., and their trip to the Capital.

THE Sanitary Conference mentioned in last issue of PROGRESS, held four sessions, and heard and discussed twenty essays. It was a profitable and in every way enjoyable meeting. It appeared, however, during the meeting that neither the secular press nor the municipal council of Louisville are disposed to admit any defects in the water supply. It was clearly apparent the Water Company supplies a wholesome water, while the contaminated wells are the especial fancy of the local council. The council spends large sums of money for sanitary work, but does not adhere to any scientific principle or obey any hygienic law in the execution of that expensive work.

SECOND CONGRESS OF FRENCH SURGEONS.

BY
MARCEL BAUDOUIN.

Translated from *Le Progrès
Medical*, for PROGRESS,

BY
MRS. SALLIE E. MORRIS,
of Covington, Ky.

(CONTINUED.)

Nephrectomy appeared to him to be indicated, especially in the cases of *trauma* of the kidneys, of tumors, of persistent renal fistula, and of course in cases of painful flowing kidney. In the other cases, in inflammations and com-

plications (renal calculi and their consequences, suppurative hydronephrosis in the calicles), we hesitate between nephrotomy and nephrectomy. Also in these last cases the operation ought to be so conducted that one would be able to pass without difficulty from one treatment to the other. Unquestionably it is the lumbar method which is there indicated, while for tumors the choice of the lumbar incision is less clearly imposed. When a tumor of the kidney is protuberant toward the abdomen, without symptoms indicating that the kidney is the organ attacked, because of the seat of the tumor and the uncertainty of diagnosis one is forced to recur to transperitoneal methods, and there are cases where transperitoneal nephrectomy is truly useful, although we may be obliged to go through the peritoneum twice. The method which he calls the *para-peritoneal*, is one turned out of the way, indicated, nevertheless, when the tumor makes a considerable start to the level of the flank and upon the side. It consists in going between the peritoneum and the abdominal walls, section upon the side.

M. RECLUS, of Paris, gave a communication upon primitive tuberculosis developed in the synorial sac. According to this author the mild fungus of testicle originates in tuberculosis due to purulent formation of a gum of the synorial sacs, and not to an epididymous collection, which consecutively cause an ulceration of the scrotum. In order to defend this thesis he cited two observations, where one has been able to see tuberculosis progress from the skin towards the testicles.

[TO BE CONTINUED.]

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY

DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

D. W. RAYMOND, BUSINESS MANAGER.

Vol. I. LOUISVILLE, MAY, 1887. No. 11.

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Contributed matter, books for review, and every thing of a literary character should be addressed to the Editor, Southeast corner Third and Chestnut streets.

PROGRESS will be found on file at the American Exchange, 449 Strand, London; 35 Boulevard des Capucines, Paris; and at Berlin, Prussia.

THE LOUISVILLE MEDICAL SOCIETY.

Annual election of officers
and the President's address

The Louisville Medical Society met in annual session May 19 for the election of officers. John Godfrey, M. D., Surgeon of the United States Marine Hospital, was unanimously elected President for the ensuing year. R. W. Taylor, M. D., and Prof. S. G. Dabney, M. D., were elected Vice-Presidents. T. S. Bullock, M. D., was elected Secretary and Treasurer. The three vacancies in the Judicial Council were filled by the election of J. M. Clemens, M. D., David T. Smith, M. D., and Prof. William O. Roberts, M. D.

Prof. William Bailey, the retiring President, delivered a brief address, which should be engraved and hung upon the walls to perpetuate the sentiments it contained. The speech of Robert Peel proclaiming the loyalty of London to the Crown, is recorded on marble in Guildhall. This is not so much a memento of Peel as the perpetuation of noble sentiments the preservation of a good record, the universal respect which a noble sentiment and a good action should always receive.

Without attempting to repeat the classical language of President Bailey, the following are some of the sentiments he expressed, namely: "This, the largest medical society in Louisville, may be said truly to perform the greatest work in an educational sense.

Here more physicians are really trained and prepared to meet the responsible duties of practitioners in every specialty, and in general medicine, than in any college; and more than in any other society here, because this one is the largest in membership, and holds its meetings weekly.

"The physician who habitually attends the meetings of the medical society is generally the busiest practitioner in the place. In fact, it may be said the really busy practitioners everywhere are the most active members of societies. The discussion of practical questions never fails to shed new light to some one; and the man who has a responsible duty to perform can never have a clear conscience until he has armed himself with every available means for the intelligent discharge of that duty. The commonest forms of disease, and the simplest forms of medication, are really not perfectly defined to the minds of all men. In fact, none of us know so much but that we really might learn more. Our best methods are susceptible of improvement; and, while we get the foundation of our knowledge in the medical schools, our education must be elaborated in the society discussions. By organized effort alone has the medical profession been able to reach important conclusions in the study of complex forms of disease. There are many accidents to health and life which are comparatively rare to many of us, but which the specialist sees more frequently, studies more minutely, and instructs us how to manage intelligently, which, without that special instruction, we should be entirely unable to comprehend.

"Twenty-five per cent of the membership of this society, it may be said, forms its working force. Now, there are many intelligent, bright members of the profession in this city who do not belong to any society at all. I believe it to be our duty to make some effort to bring these men into our organization; and I earnestly request each member present to secure one or more of these gentlemen from the outside, to be presented for

membership at our next meeting. I promise to make an earnest effort to add some of this valuable material to the working corps of the Louisville Medical Society."

After the presidential address, the society adjourned to meet Thursday evening, May 26, at Rassinier's restaurant, where a grand banquet will be held, and an oration delivered by the newly elected President, Dr. John Godfrey, of the United States Marine Hospital service.

IMPORTANT NOTICE.	Please remember the editor of PROGRESS does not attend to either the subscription or other business affairs. Do not address the editor when you wish to subscribe, or when you change your Post-office address. MR. D. W. RAYMOND, 237 Third Avenue, attends to all these matters.
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A NEW PUBLISH- ING HOUSE.	The <i>Medical Register</i> , of Philadelphia, is engaged in the publication of what it calls "A Practical Series," two volumes of which are now ready for distribution, namely: <i>Earth in Surgery</i> , by Addinell Hewson, M. D., of Philadelphia. Price, one dollar.
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What to do in Cases of Poisoning, by William Murrell, M. D., of London, edited by Prof. Frank Woodbury.

Now going through the press is a manual of the minor Gynæcological Operations and Appliances, by J. Halliday Croome, M. D., etc., Edinburgh. First American from the second English edition. Revised and enlarged by L. S. McMurtry, M. D., of Danville, Ky.

Practical Electro-Therapeutics, illustrated, by William S. Hutchinson, M. D., of Providence, R. I.

Lesions of the Vagina and Pelvic Floor, by R. E. Hadra, M. D., of Austin, Texas.

We submit the above as a very creditable announcement for the beginning of a new publishing house. All the works named have a certain practical value, and must, therefore, be popular.

We congratulate the *Medical Register* Publishing Company upon its auspicious outset.

PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

MILK, described by Dujardin-Beaumetz as "the type of complete aliments" is so important a resource in the feeding of the sick that every possible means of variety in its preparation should be utilized. The preparation of "junket" or "curds and whey" was an old-time method of using it, which little obtains at the present time, owing no doubt to the unreliability of the rennet preparations of the shops, and many practitioners have probably met with disappointments in its use for the purpose of curdling milk. We notice that Messrs. Fairchild Bros. & Foster are now calling especial attention to the availability of the Essence of Pepsine for this purpose. Milk curdled by Essence of Pepsine forms a very toothsome food of the consistence of custard, and gives, therefore, the sense of substance which is craved by many invalids and convalescents, and will moreover be well digested, owing to the fact that it will be masticated and enter the stomach in the form of soft coaguli, and is incapable of forming the mass which frequently results from the ingestion of ordinary milk. Whey, moreover, is an exceedingly valuable resource, containing a considerable portion of fat and albuminoids in suspension in addition to the milk, sugar, and salts which are in solution. Whey may also be readily flavored with wine, etc., or may be made into jelly by the usual domestic methods. Whey should not be lost sight of in the coming hot season as a method of varying the feeding of an infant, and as capable of sustaining life for a considerable time under conditions where milk may not be found permissible. One teaspoonful of Essence of Pepsine (Fairchild's) will curd a pint of milk in a few minutes.

LISTERINE has been very improperly classed along with such commercial "disinfectants" as Labarraque's solution, bromochloralum, Platt's chlorides, and similar *germicides* usually relied upon for the *disinfection* of sewers, water-closets, and other receptacles of filth. According to the scientific definition the term "disinfection"—*i. e.*, the destruction of disease germs—Listerine was never designed as a germicide, but it claims to be what clinical experience has proven to be true—an essential and trustworthy *antiseptic* for internal and external use about the human body. To counteract the intestinal putrefactive processes in diarrhea it is especially to be recommended.

Practice.

DR. THOS. LITTLE, of Spirit Lake, Iowa, in comparing Papine with other forms of Opium, says: "I have been using Papine for the past two months. It meets the requirements of a class in which opiates are indicated, but in which the 'remedy is worse than the disease.' One case in particular has given me a great deal of trouble for years. I have tried opium in every form, and many other narcotics, alone and in combination; but constipation, nausea and nervous prostration have been the invariable results. Some two months since I obtained some Papine and commenced on this case with the happiest effect; no nausea, no constipation, no prostration. I have been prescribing it in my practice since with the greatest satisfaction to myself and my patients."

DURING the past two years I have been using Listerine very freely in my Dental practice, and can not speak too highly of its merits as an antiseptic; while it is certainly the most elegant and reliable preparation I have ever employed.

ALLEN E. BRADLEY, D. D. S.
Norwich, N. Y.

MACON, JEFFERSON CO.,
ARK., Sept. 14, 1886. }
Messrs. Arthur Peter & Co., Louisville, Ky.:
I have given SYRUPUS ROBORANS a fair
Vol. 1, No. 11—41.

trial on a case of debility of over twelve months standing. It has made a radical change in him (Mr. William Simmons), he was so weak and had almost lost the *motor* power of his muscular system, that he could hardly walk at all. He had giddiness, swelling of the stomach after meals, and pains more or less all over the whole system, which symptoms have all left him, and he says he begins to feel himself once more. As soon as he has gone far enough with the medicine, I will make him describe the action himself, which he is perfectly willing to do. I have not used but three ounces of the "ROBORANS" on him as yet. I am much pleased with the medicine and I think it will stand high with the profession if they will give it a fair trial.

Respectfully,

JOHN F. EATON, M. D.

FROM an article on The Feeding of Infants Deprived of the Breast Milk, by J. Lewis Smith, Clinical Professor of Diseases of Children, Bellevue Hospital Medical College. No physician should recommend a food as he would not a medicine, without knowing its composition, and the composition of most of the recent dietetic preparations, ending with Carnrick's, has been announced. Carnrick's food contains a large percentage of the solid constituents of milk, the casein of which has been partially digested so as to resemble the casein of human milk in its behavior under the digestive ferment. The other ingredient is stated to be wheat flour subjected to prolonged baking, so that its starch is to a considerable extent converted into dextrine. This food has the advantage of easy preparation in the nursery, and easy digestion. Used alone it is sufficiently nutritious for the infant. It will probably supersede some of the older foods of the shops. Poor families who can not afford to use it as the sole food, will, according to my observation, find it useful made into a thin gruel and employed in diluting the cow's milk with which these infants are fed.

QUEEN & CO. 924 CHEST. ST.



PHILADELPHIA, PA.

DENTAL DEPARTMENT.

CONDUCTED BY A. WILKES SMITH, M. D., D. D. S.

THE KENTUCKY
STATE DENTAL
ASSOCIATION

Will hold its seven-
teenth annual meeting
in the south hall of
the Louisville College
of Dentistry, Chestnut Street, between Floyd
and Preston, beginning Tuesday, June 7,
1887, and continuing three days.

PROGRAMME.	PRAYER.
ADDRESS OF WEL-	
COME.—A. Wilkes Smith, M. D., D. D. S.	
RESPONSE.—Charles E. Dunn, D. D. S.	
ADDRESS OF THE PRESIDENT.—J. T. Mc-	
Millan, D. D. S.	

SUBJECTS FOR DISCUSSION.—(1), The
Proper Care of Children's Teeth; (2), The
Consistent Saving of Time in Prolonged
Operations—How can it best be accom-
plished? (3), The Causes of Dental Caries,
and the best Preventive Treatment; (4) The
Proper Treatment of Pulpless Teeth; (5),
Crown and Bridge Work; (6), New Reme-
dies; (7), Incidents of Office Practice.

Members are requested to prepare papers
on above subjects.

PAPERS.—(1), Cancrum, or Scirrhus Gan-
grenousa of the Inferior Maxillary, J. T.
McMillan, D. D. S., Paris, Ky.; (2), First
Dentition, F. Peabody, D. D. S., Louis-
ville; (3), Disease, J. Taft, D. D. S., Cin-
cinnati; (4), Irregularities, G. W. Keely,
D. D. S., Oxford, Ohio; (5), The Rationale
of Crown and so-called Bridge Work, John
J. R. Patrick, D. D. S., Belleville, Ill.;
(6), Inflammation, H. D. Eggers, M. D.,
D. D. S., Louisville.

CLINICS.—(1), Gold Crown and Bridge
Work, John H. Baldwin, D. D. S., Louis-
ville; (2), Impressions, B. Oscar Doyle, D.
D. S., Louisville; (3), Microscopy, Simon
Flexner, Ph. G., assisted by J. Hooper,
Louisville; (4), Porcelain Crown, F. Pea-
body, D. D. S., Louisville; (5), Gold Crown
with Porcelain Face, C. G. Edwards, D. D.
S., Louisville; (6), Irregularity Appliances,
G. W. Keely, D. D. S., Oxford, Ohio; (7),

Bridge Work, John J. R. Patrick, D. D. S.,
Belleville, Ill; (8), New Appliances, T. A.
Long, Philadelphia.

VOLUNTARY PAPERS.—Conceited Den-
tists, H. D. Eggers, M. D., D. D. S., Lou-
isville. Irregularities, W. P. McQuown,
Georgetown, Ky. Crown and Bridge Work,
J. Hooper, Louisville.

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Smith, M. D., D. D. S., Richmond; C. G.
Edwards, D. D. S., Louisville.

The State Board of Examiners will meet
daily during the session to register and ex-
amine applicants.

ARREST OF DEVELOPMENT.

When Dr. H. F. Formad, of Philadel- phia, published his fa-

mous essay on the mechanical causes of per-
sistent lymphatic engorgement, he furnished
a key for the solution of many knotty points
in the pathology of chronic diseases. If an
excess of lymph be present in childhood, it
is of the utmost importance to get rid of it,
lest it constitute those changes in the lumen
of the lymph tubes and the lymphatic glands
described by Dr. Formad as being in the na-
ture of connective tissue-fiber obstructions
to the flowing current. These abnormal
bands of connective tissue, drawn through
the lumen of the lymph tubes, must not be
allowed to develop, for the very good reason
that, when once formed they constitute per-
manent conditions that interrupt the devel-
opment of the teeth as well as other organs.

PROGRESS

A Monthly Magazine for Students and Practitioners of Medicine.

"I HOLD EVERY MAN A DEBTOR TO HIS PROFESSION; FROM THE WHICH AS MEN OF COURSE DO SEEK TO RECEIVE COUN- TENANCE AND PROFIT, SO OUGHT THEY OF DUTY TO ENDEAVOUR THEMSELVES, BY WAY OF AMENDS, TO BE A HELP AND ORNAMENT THEREUNTO. THIS IS PERFORMED, IN SOME DEGREE, BY THE HONEST AND LIBERAL PRACTICE OF A PROFES- SION; WHEN MEN SHALL CARRY A RESPECT NOT TO DESCEND INTO ANY COURSE THAT IS CORRUPT AND UNWORTHY THEREOF, AND PRESERVE THEMSELVES FREE FROM THE ABUSES WHEREWITH THE SAME PROFESSION IS NOTED TO BE INFECTED; BUT MUCH MORE IS THIS PERFORMED, IF A MAN BE ABLE TO VISIT AND STRENGTHEN THE ROOTS AND FOUNDATION OF THE SCIENCE ITSELF; THEREBY NOT ONLY GRACING IT IN REPUTATION AND DIGNITY, BUT ALSO AMPLIFYING IT IN PROFESSION AND SUBSTANCE."—BACON.

VOL. I.

LOUISVILLE, KY., JUNE, 1887.

No. 12.

GENERAL MEDICINE.

THE INDICATION FOR QUININE IN PNEUMONIA.

BY
MARY PUTNAM JACOBI
M. D.,
NEW YORK.

[*New York Med. Jour.*]

Mr. Mill closes a review of the poems of Alfred de Musset with the remark, "How much life is re- quired to produce a little poetry!" Simi- larly, I think, no one can sift clinical rec-

ords without feeling inclined to exclaim, "What an enormous amount of data are re- quired to justify a few positive conclusions!" On this account, fresh observations are al- ways in order, and this is my excuse for presenting the partial conclusions which may be deduced from a hundred dispensary cases of pneumonia treated by quinine.

It would seem, at first, as if 100 cases would suffice for many and quite positive conclusions. But the uncertainty of dispen- sary practice is so great that, out of this 100, only thirty-three cases were followed to com- plete termination. In twenty others the record continues until after marked deferves- cence had occurred, making a fairly satis- factory total of fifty-three. In twenty other cases the record stops during the continua- tion of fever or of marked physical signs, while in twenty-eight cases the patients were only brought to the dispensary on a single occasion. The age of the patients varied from three weeks to eight years, much the larger number being about two years and a half old.

From the incompleteness of so many of the histories, it is useless to attempt positive conclusions in regard to the mortality sta- tistics. Out of the whole number, seven are known to have died, so that the mortality can not be less than seven per cent, while it may be greater. But, on the other hand, the conditions were so generally unfavorable that it is impossible from these data to esti- mate the chances of death from the disease under quinine treatment, when all the de- tails of management should be under the physician's control. Of course, all the cases brought to the dispensary were, by that fact, submitted to a degree of exposure which would be carefully avoided in either hos- pital or private practice. The general hy- giene of the house was usually bad, the nursing unskillful and often inattentive, and a tendency to caseation and tuberculization existed very frequently, either constitutional or as a result of measles. One of the seven deaths occurred in a pneumonia following diphtheria; in another case it was consecu- tive to scarlet fever. Setting aside the mor- tality statistics as entirely inadequate for any useful purpose, the data may be utilized in the inquiry how far the fever or the physical signs of pneumonia are demonstrably influ- enced by quinine.

The physical signs especially investigated were the combination of extremely harsh or of bronchial breathing with dullness on per- cussion. In a few cases tympanitic percus- sion sound existed over areas where the auscultatory sounds would have led the ob-

server to expect dullness. This paradoxical phenomenon is best explained by the German theory, which ascribes it to some such infiltration of the walls of the air-cells as may prevent them from vibrating under percussion. The column of air then vibrates alone—gives rise to homogeneous vibrations, as shown by experiments with the sensitive gas-flame—and such homogeneous vibrations have a tympanitic resonance. Similarly, percussion over the stomach normally occasions a tympanitic sound, because the walls are too flaccid to vibrate. But if the stomach be first overdistended, or, conversely, if healthy lungs be removed from the body, and percussed in their relatively collapsed condition, the note becomes duller in the first case, tympanitic in the second. Upon inflating the lungs, however, and repeating the percussion, the tympanitic note is found to have disappeared.

This experiment is mentioned by both Weil and Gerhardt in their treatises on percussion and auscultation. I have repeated the experiment, and obtained exactly the results stated. I have made somewhat of a digression to mention these facts, because I have found them omitted by many English and American authors.

Clinically, tympanitic percussion sound with consolidation often coincides with caseous degeneration of the lung, and the theory would therefore be sustained by the peculiar infiltration of the alveolar walls known to characterize Buhl's desquamative pneumonia.

To return to the clinical analysis. Seventeen of the cases examined had blowing respiration in some portion of the lung, usually in the upper scapular region, and among these sixteen had fever. Forty-eight cases exhibited tubular breathing, and among these only two were without fever at the time treatment was begun.

To nearly all these cases quinine was administered in about the same way. Five grains were given at night, and the same amount in the morning, each in two doses

at an hour's interval. In babies under eight months old, two grains and a half were given night and morning, similarly divided. In one or two cases requiring special mention, to children over two years old, larger doses were given. Out of the sixteen cases of the first class, with harsh and blowing respiration, usually, of course, accompanied by râles, and other signs, physical and rational, that I need not here particularly describe, the blowing respiration disappeared—after two days in three cases; after three days in two cases; after four days in six cases; after five days in one case; after six days in one case; after seven days in one case; after fourteen days in one case.

In the apyretic case with blowing respiration this had disappeared after two days' medication.

In the second class, where tubular breathing indicated more intense congestion, or even consolidation of the lung, this was relieved, as shown by the disappearance of the sign—after two days in three cases; after three days in three cases; after three days in three cases; after six days in one case; after seven days in five cases; after eleven days in one case; after fourteen days in one case; after seventeen days in one case; after eighteen days in three cases; after three weeks in one case.

Two cases, without fever, lost their tubular breathing in one and ten weeks respectively.

Twenty-four cases were not observed to complete termination, the patients ceasing attendance. In ten of these the fever had almost disappeared, and the patients were greatly improved when lost sight of; there was every reason to believe that they completely recovered. But in these, when last seen, the tubular breathing was persisting—after two days in three cases; after six days in one case; after seven days in two cases; after nine days in one case; after twelve days in one case; after eighteen days in one case; after six weeks in one case.

Among the patients lost sight of while the

fever was still high, and the morbid process progressing, the tubular breathing was persisting—after two days in six cases; after three days in one case; after four days in one case; after five days in one case; after seven days in two cases; after ten days in one case; after eleven days in one case; after twelve days in one case.

The tables of cases in which the patient was under observation until the physical signs had been effectively modified show that this modification occurred at varying intervals during the first week from beginning of treatment in twenty-nine cases, and in from eleven to eighteen days in only seven cases; finally after three weeks in one case. On this account, the persistence of tubular breathing during from two to seven days in seventeen cases, which were not watched to their termination, proves nothing against the final recovery of the patients. Such recovery was almost certain, moreover, in six of these seventeen cases, because, notwithstanding the persistence of tubular breathing, marked defervescence had occurred, and the patient was evidently entering upon convalescence. The possible occurrence of fresh attacks, or of extension of the morbid process to other parts of the lungs, would prove nothing against the favorable modification of the first set of symptoms by the treatment.

In ten cases tubular breathing developed while the patient was receiving quinine. The treatment had been instituted when the occurrence of hurried and harsh respiration, together with fever, had pointed to a commencing broncho-pneumonia in scattered or in deep-lying foci. The appearance of the tubular breathing after two or three days of quinine medication indicates that in these cases the extension of the morbid process, or the agglomeration of the pneumonic foci, was not averted by the treatment. In four of the cases the lungs cleared up on the fourth, seventh, tenth, and fourteenth days respectively. In six the patients were lost sight of on the second, fourth, fifth, and

seventh days, and the tubular breathing persisted. To sum up such results as were obtainable from the data, we may say that quinine was given in fifty-nine cases which could be watched to the beginning of convalescence or to death. Seven cases proved fatal, either during the height of the acute attack or by the supervention of acute tuberculization.

In twenty-nine cases blowing or tubular breathing disappeared in from two to seven days, in seven cases in from eleven to eighteen days, in one case after three weeks, thus making a total of thirty-seven cases.

Finally, in ten cases, though defervescence was established, the tubular breathing was persisting in from two days to six weeks; thus in about one fourth as many cases as those in which it disappeared. But these ten cases represented convalescence, and may be added to the thirty-seven cases in which the physical signs disappeared with the fever. In addition to the pyretic cases, quinine was given in five apyretic cases of chronic consolidation of the lung, and in one of congestion from mitral insufficiency.

As these cases bear particularly upon the view of quinine to be advocated in this paper, a summary of each will be given.

CASE XXXVIII.—Two and a half years; broncho-pneumonia fourteen days after measles; first seen May 10; harsh and laborious respiration at right apex; t. 100.5°. R Vin. seneg. and am. carb.

May 12.—No improvement. R Potass. chlor., sod. bicarb., syr. ipecac., inf. prun. virg.

15.—Abundant râles upper half right lung; respiration very harsh; expiration blowing at apex. R Poultice. Quinine, gr. v, night and morning, in two doses at an hour's interval.

19.—Vomited after quinine; râles diminished; expiration still blowing; t. 100°. R Quin., gr. ij, every two hours.

22.—Much improvement in general appearance; no fever, no râles, no vomiting; expiration, however, tubular at apex. Con-

tinue quinine, but in five grains, night and morning, as on 15th.

The treatment was continued with progressive improvement until on June 9 the tubular breathing was found to have disappeared. The quinine was then suspended. R Syr. tolu.

June 16.—Return of cough; tubular breathing found at left apex. Resumed quinine; continued until—

30.—When tubular breathing entirely gone. Quinine suspended.

CASE LIV.—Child two years; first seen December 4; pneumonia lasting since measles in September; dullness and increased vocal resonance at both apices; whiffs of tubular breathing; t. 99.5° ; glands of groin enlarged. R Ol. morrhuae and calcii phosphatis.

January 29.—Child reported as having entirely recovered. Then acute attack, ushered in by convulsion; t. 102.5° ; R. 48; harsh respiration over both lungs without râles. R Quin., gr. v, morning and night, in two doses each time.

31.—T. 99° ; R. 36. Continue quinine.

February 5.—Respiration harsh and blowing at both apices. Continue quinine, also ol. morrhuae and calcii phos.

19.—Respiration nearly normal. R Quin., gr. ijss., night and morning. Tinct. capsici externally.

March 12.—Recovery complete.

CASE VII.—Chronic pneumonia or peribronchitis; boy, aged ten. On August 31 tubular breathing at right apex; no fever. R Quinine, gr. v., night and morning.

September 23.—Only occasional whiffs of tubular breathing in right supra-spinous space. Continue quinine.

October 12.—Respiration only tubular on forced breathing.

CASE XXXVI.—Aged two and a half years; cough for four months; slight tubular breathing at apex of right lung, t. 100° ; on October 25, quin., gr. v, night and morning in divided doses.

27.—No tubular breathing; respiration harsh; t. 98.5° ; apparent improvement.

CASE LVI.—Child, aged three months; cough for five weeks; bronchial breathing with dullness at right apex. On February 5, quinine, gr. ij, night and morning.

February 12.—Tubular breathing at right apex. Continue quinine, also ol. morrhuae and calcis chlor.

19.—Cough lessened. Continue.

23.—Tubular breathing gone; replaced by harsh respirations, with subcrepitant râles.

CASE VI.—Boy aged nine months; rheumatic mitral insufficiency without hypertrophy; much dyspnoea and cough. Presumed hyperæmia of bronchial mucosa. Digitalis for three days without obvious effect. Then quinine, gr. v, night and morning. Three days later child much improved; no cough; cheeks and lips red instead of bluish.

In thirty-two cases the fever was observed to entirely disappear, or to fall to 101° , under the quinine medication. This defervescence occurred on the second day in eight cases; on the third day in three cases; on the fourth day in three cases; on the fifth day in five cases; on the sixth day in two cases; on the seventh day in four cases; on the eighth day in two cases; on the tenth day in one case; on the eleventh day in one case; on the twelfth day in one case; on the thirteenth day in one case; on the nineteenth day in one case; total, thirty-two cases.

Thus in twenty-five cases defervescence occurred within seven days after beginning the quinine; in seven cases it was later. In fourteen of the thirty-two cases the physical signs persisted though the temperature fell, twelve of these cases having tubular breathing.

In the remaining eighteen cases the physical signs disappeared, or were greatly modified, coincidently with the fall of the temperature.

In nineteen cases more or less fever, sometimes as much as 105° , was found on the

last visit of the child, which occurred after two days in seven cases; after three days in one case; after four days in two cases; after five days in two cases; after seven days in one case; after nine days in one case; after ten days in two cases; after twelve days in three cases.

In four of these twenty cases the physical signs had greatly improved, although the fever persisted. In the remaining sixteen the physical signs also remained unchanged. Comparison of this table of nineteen apparently unfavorable cases with the table of thirty-two cases in which defervescence was positively observed somewhat diminishes the unfavorable aspect of the incomplete cases. For a delay of defervescence as far as the seventh day, observed in thirteen of the latter class, is not at all exceptional in cases of perfect ultimate recovery, for it occurred in twenty-five out of the thirty-two undoubtedly successful cases. The remaining seven of these, moreover, delayed defervescence as long as, or longer than, the remaining six of the second division.

The temperatures existing at the time the quinine treatment was begun varied from 103° to 105° . Within this range the height of the temperature did not seem to modify its resistance to medication. On the other hand, an increased amount of quinine did not seem to exercise any greater influence over the fever than the ten grains a day habitually given.

Thus, in one case early in the series, a child of six months received, in divided doses, ten grains of quinine in the evening and five in the morning. This was well tolerated, and, on reporting two days later, the child seemed much better, the respiration was easy, and the temperature 100° . Tubular breathing was heard bilaterally at the root of the lungs, and the percussion resonance was diminished over both lungs. The quinine was reduced to five grains night and morning. Two days later the temperature rose to 105° , the tubular breathing had disappeared, but the child was vomiting and

the amount of urine diminished. Quinine was given by rectal injection, and again to the amount of fifteen grains in twenty-four hours. It was nearly all rejected, but on the two following days ten grains was administered in two doses by the mouth after two days; the temperature was still at 103° , the respiration 60, and the pulse 140. The mother then ceased attendance and medication for a week, rather wisely as it proved, for at the end of that time the baby was in full convalescence, the temperature 101° , the respiratory signs almost normal.

The foregoing case is, I think, of value, purely as a physiological experiment, in showing the resistance of pneumonic fever to doses of quinine which might be considered overwhelming for a child of six months of age. Another case, not included in the foregoing list, exhibits the same resistance of febrile temperature to larger doses of quinine under somewhat different circumstances.

A boy of four years entered the infirmary with a history of pneumonia following measles, and of four weeks' duration. Over the upper fourth of the right lung and nearly the whole of the left the respiration was extremely harsh in both lungs, with the expiration prolonged but not tubular. Moderate flatness on percussion existed over the upper fourth of both lungs, but over the middle third of the left was a markedly tympanitic resonance, prolonged into the axillary space. Notwithstanding this situation, which seemed favorable to the theory of tympanitic resonance from the stomach, I regarded the sign as probably indicative of commencing caseous infiltration. The child at first received five grains of quinine night and morning, and this was continued several days as an experiment, and to ascertain if the signs of pulmonary congestion would be modified by larger of quinine. Twenty grains of the drug were administered in twenty-four hours, in divided doses every six hours. During the second twenty-four hours of this medication, which was appar-

ently well tolerated, the temperature rose to 102.5° , and continued to rise every evening after the larger doses of quinine were stopped.

The hectic thus developed was attributable to the tuberculization of the lung that became soon manifest; but it was clear that the fever was not even symptomatically checked by the quinine.

In a third case, a baby four months old, with signs of broncho-pneumonia at the apex of both lungs and a temperature of 102.5° , received a grain of quinine every two hours. Much of this was vomited. Three days later the temperature was still at 102° , and the physical signs unchanged. The use of quinine was interrupted for two days, then resumed as before, together with camphor and brandy. The temperature was then 103° . Two days later this temperature was unchanged, though the quinine had been retained. The tubular breathing, with râles, had extended to the middle of the right lung. Three days later the temperature was 106° . The left apex and the upper half of the right lung solidified.

At this point the child was lost sight of. Whether, as was only too probable, it died could not be ascertained; but it is certain that the large doses of quinine entirely failed to prevent either the rise of temperature or the extension of the morbid process in the lungs. Between the extreme and special cases just mentioned, and which in this series are the only ones recorded as those in which more than ten grains of quinine were given daily, and the mass of the cases in which precisely this amount was given, lies a considerable range of possibilities for varying methods of medication. Into these, of course, the reasoning of this paper can not enter. But, from the data given, the positive conclusion can be drawn that, in the pneumonia of children between six months and four years of age, a daily dose of ten grains of quinine does not act as an antipyretic *per se*, does not reduce temperature directly and apart from the morbid process, but only in so far as it modifies this.

It is true that in fourteen out of thirty-two cases defervescence occurred while signs of consolidation still persisted in the lungs. But it is well established that such signs do not contradict the arrest of the morbid process, but merely indicate the continued presence of the exudation which this has already caused. In croupous pneumonia the exudation signs may persist long into well-established convalescence. In catarrhal pneumonia, and especially in children, the exudation can not persist without risk of caseation; but this is a new process, and its dangers need not be immediately taken into account in the management of acute inflammation. Defervescence, therefore, except when brought on purely symptomatically—as by cold, or large doses of antipyretics—always indicates at least a temporary arrest of the morbid process, while the disappearance of many signs of congestion, which in children so often simulate those of exudation, indicates no convalescence so long as the temperature remains elevated. A forced defervescence in broncho pneumonia apart from an arrest of the morbid process would be of little advantage to the patient, unless in the relatively few cases where a great excess of temperature threatens or causes convulsions. There is certainly no danger in children, in non-infectious pneumonia, of cardiac degeneration from either heat or other cause. The pneumonias after diphtheria or scarlatina may often owe their fatal termination to infectious myocarditis, with thrombosis; but against this danger antipyretics would be powerless. Apart from the possibility of an infecting agent in the blood, the fever in pneumonia seems most plausibly explained by paresis of the heat-regulating centers of the medulla, the consequence of an excess of excitations conveyed to the medulla from the lungs in the centripetal fibers of the vagus. According to the experiments of Rosenbach in normal respiration, the distension of the lung in complete inspiration irritates the pulmonary fibers of the vagus; the irritation

is conveyed along these fibers to the medulla, and inhibits the excitation of the inspiratory center, which, determined by the presence of carbonic acid in the blood, has been the cause of the inspiratory expansion of the thorax. The irritations thus generated in the lung convert the otherwise permanent excitation of the inspiratory center into a rhythmical excitation by means of periodical interruptions. When the inspiratory center is inhibited, the inspiratory movement is arrested, the thorax passes into the passive state of expiration, and remains there until the increasing venosity of the blood again excites the inspiratory center.

When the pulmonary tissue is inflamed, the fibers of the vagus suffer an abnormal irritation; the medullary center is therefore more frequently inhibited; the respiratory movements are shorter and far more frequent than in health. A sudden acceleration of respiration, with a rise of temperature, may often suffice to indicate inflammation of the lung tissue, or the transition from bronchitis to pneumonia, even in the entire absence of physical signs.

The centripetal nervous irritations which suffice to inhibit the respiratory center and the heat-regulating centers of the medulla can hardly fail to affect its vaso-motor center as well. It seems, indeed, highly probable that the vaso-motor fibers of the pulmonary blood-vessels, whose independent existence has not been demonstrated, run in the paths of the vagus. But the immediate effect of irritating the vaso-motor center is the contraction of blood-vessels. The dilatation of pulmonary blood-vessels in pneumonia can only be referred to the vaso-motor system under two circumstances. First, when the pulmonary congestion is generalized and primary, dependent on some overpowering influence primarily exercised on the vaso-motor center and apart from local pulmonary disease. Such congestions are seen in malarial and other infections. In the second case, the long-continued irritation of the vaso-motor center, when the

periphery of the vagus has been severely irritated by inflammation of lung tissue, may result in secondary paresis of the medullary center, and hence in the terminal congestions of fatal cases of pneumonia.

It is worth noting that two out of the three immediate consequences of vagus irritation in pneumonia are conservative in their tendency. The increased frequency of respiration tends to compensate the restriction in area of respiratory tissue, and this has frequently been pointed out. Irritation of the vaso-motor center tends to antagonize the tendency to abnormal dilatation of blood-vessels caused by the unknown irritament of the inflammation.

It has not yet been demonstrated that the fever which results from inhibition of the heat-regulating centers is also conservative, and only dangerous when in excess, but the other facts render this *a priori* probable. Diminution in the area of respiratory tissue threatens ultimately a diminution of the oxidations upon which the vital heat depends. The rise of bodily temperature caused by deficient elimination of heat—the probable cause of the fever in at least catarrhal pneumonia—seems to indicate a blind effort on the part of the organism to husband its heat resources, and thus to avert the collapse which is threatened by the disease.

The theoretical estimate of the action of quinine, or of any medication, in pneumonia must be based on the manner in which it can be shown to affect these vagus irritations, or else the pulmonary lesions which occasion them.

The most usual accounts of the lesions of broncho-pneumonia given by English and American writers emphasize the existence of bronchitis, and then describe the peribronchial alveoli as in a state of catarrhal inflammation, characterized by a proliferation and desquamation of epithelial cells. Delafield, however, describes hepatized lobules—not granular, as in croupous pneumonia—yet standing out above the surrounding tissue, and filled with epithelium, leucocytes,

and fibrin. This fibrinous exudation, according to Charcot and Grancher—the French writers who have most recently investigated the subject—is particularly characteristic of the peribronchial alveoli at the center of the lobule. Thus, as Cadet de Gassicourt remarks, we may no longer establish a distinction between croupous and catarrhal pneumonia, according to the presence or absence of fibrin in the exudation. This central zone of hepatization, the peribronchial nodule, is surrounded by a zone of splenization. This is caused by a congestion of the alveolar walls, or even by a beginning of infiltration of these walls by empyronic cells, and by a mass of voluminous epithelial cells with a few leucocytes in the interior of the cells. This zone may be entirely absent, or it may greatly predominate. “It plays an important role in the clinic, for it belongs at once to hyperæmia and to hepatization; it is mobile like the one, and fixed like the other, and may sometime extend with great rapidity.”

The localization of the most severely injured tissue in broncho-pneumonia, in the immediate vicinity of the inflamed bronchus, would seem to confirm the old doctrine that the irritament, instead of being diffused, as in croupous pneumonia, is brought to the air cells by the bronchi, or generated among the products of the inflammation of their mucosa. The condition of the outer zone of the lobule indicates a more diluted action of the same irritament, one of whose effects is the formation of leucocytes—*i. e.*, of pus; the other, the paralysis of the capillaries. The way is clearly open for the future demonstration of some form of bacteria which shall have been cultivated in the mucous of the inflamed bronchial tubes, and secreted the poison that could produce these characteristic effects. Such a bacterium, the pneumococcus of Friedländer, is known to have been accepted by many authorities as the efficient cause of croupous pneumonia, though Sternberg considers it identical with a micrococcus existing in the saliva. I am

not aware that any discovery analogous to Friedländer's has been made for broncho-pneumonia; we must therefore continue to speak of an unknown irritament as the cause of the vascular and other lesions of the disease.

In our ignorance of the precise nature of the irritament, or of the manner in which it determines the pulmonary lesions of the disease, or therapeutic action must be indirect. It must aim at maintaining or at restoring the circulation on the periphery of the inflamed lobules, or of an aggregation of them. This aim is partly accomplished by the systematic application of moist heat, and the use of such remedies as seem to modify the bronchitis, and there is much reason to believe that, for direct action upon the congested pulmonary blood-vessels, quinine is the best drug at present known.

ANTIPYRINE.

M. Germain Sée read a paper on the action of antipyrine against pain. The hypothermic property of this medicine presents but a secondary interest in comparison with the remarkable effects which it produces on the element of pain. In acute or chronic attacks of gout, in slow rheumatic attacks the pain disappears rapidly under the influence of four to six grains of antipyrine administered every day for a week. But it is above all in the nervous troubles of sensibility that antipyrine produces this maximum of action, facial neuralgia and migraine yielding easily when it is employed. The lightning pains in the beginning of locomotor ataxia are calmed by antipyrine at least as well as by acetanilide or phenylacetanilide ($C_6H_5NHC_2H_3O$); the first of these substances has the advantage over the second of being more easily handled, and it is less dangerous.

The anguish of diseases of the heart, of the aorta and cardiac arteries, yield under the influence of four to six grains of antipyrine. This valuable medicine ought always to be given in doses of one grain at an in-

terval of from one to three hours, in a half glass of ice water. The most serious inconvenience of its employment consists in an eruption resembling that of scarlatina, but which easily disappears. The experiments of M. Gley on animals show that antipyrine produces a true anesthesia in the member where it has been injected; it seems to act on the terminations of the nerves. Be it as it may, antipyrine is one of the most efficacious and inoffensive medicines against pain.

K. R.

TEA, COFFEE, AND COCOA.

Dr. James W. Fra-ser has, after considerable study, determined the following facts: "1. That it is better not to eat most albuminoid food stuffs at the same time as infused beverages are taken, for it has been shown that their digestion will in most cases be retarded, though there are possibly exceptions. Absorption may be rendered more rapid, but there is a loss or nutritive substance. On the other hand, the digestion of starchy food appears to be assisted by tea and coffee; and gluten, the albuminoid of flour, has been seen to be the principle least retarded in digestion by tea, and it only comes third with cocoa, while coffee has apparently a much greater retarding action on it. From this it appears that bread is the natural accompaniment of tea and cocoa when used as the beverages at a meal. Perhaps the action of coffee is the reason why, in this country, it is usually drunk alone or at breakfast, a meal which consists much of meat, and of meats (eggs and salt meats) which are not much retarded in digestion by coffee. 2. That eggs are the best form of animal food to be taken along with infused beverages, and that apparently they are best lightly boiled if tea, hard boiled if coffee or cocoa, is the beverage. 3. That the casein of the milk and cream taken with the beverages is probably absorbed in a large degree from the stomach. The butter used with bread undergoes digestion more slowly in presence of tea, but more quickly in the presence of coffee or cocoa; that is, if the fats of butter are influenced in a similar way to oleine. 5. That the use of coffee or cocoa as excipients for cod-liver oil, etc., appears not only to depend on their pronounced tastes, but also on their action in assisting the digestion of fats."—*Lancet*, May 7, 1887.

GENERAL SURGERY.

LOCAL TREATMENT OF CHRONIC JOINT AFFECTIONS.

BY
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[*The Medical Register.*]

That there are doubts still existing in the minds of medical men in regard to the efficiency of external remedies in the treatment of deep-seated affections, and in cases

where the disease is dependent on constitutional trouble, no one will deny. In this age of progress we have many important lessons to learn, and not one of them is of greater significance than the presumption that the public is in need of advice to take less medicine. A sad commentary on the activity of the American people in the way of self-medication is the statement in the public press that during the year 1885 there was expended for proprietary and patent medicines the extraordinary sum of \$22,000,000, the list embracing no less than five thousand different articles. Assuming that even a considerable portion of these compounds is possessed of intrinsic value, it is doubtful if more than once in ten times the remedy selected is adapted to the morbid condition, and in nine tenths of the cases we have the best evidence that the results are positively harmful. The experience of every practicing physician will verify this assertion beyond question. It is, then, the manifest duty of every physician to guard his patrons as far as lies in his power against the baneful influence of this growing evil.

The writer is forcibly reminded of this unfortunate condition of affairs in the course of his review of the cases which follow, and these preliminary remarks are prompted by the absolute necessity of the case. Having departed from the subject this far, the reader may pardon a further digression in the way of an illustrative case: Mr. A. B. is a hearty and well-preserved man of fifty-five years, but has been a sufferer for many years from lumbago, and he tells me that nearly every spring and autumn he is laid up for two or

three weeks, and has to take a great deal of medicine. Two applications of the faradic current to the affected muscle relieve the distress in twenty-four hours. This man has worn a belt made of several thicknesses of flannel for the preceding twenty years, but on my suggestion it is wholly discarded and with the best possible results. When this gentleman first consulted me he had been for months under self-treatment for the cure of Bright's disease, but a thorough examination convinced him that he was all at sea, and a simple remedy for the relief of indigestion effected a cure.

The method of treatment here outlined is not claimed as original, as the suggestion was put forward in one of our medical journals several years ago; but the name of the writer has been forgotten, and diligent search has failed to bring to light the lost periodical.

CASE I—is that of a painter, aged forty, who has suffered for several years from stiffness of one knee, and who says medicine can't do any thing for him, as he has taken all kinds, and every known liniment is utterly useless. There is no history of lead-poisoning, nor are there any indications of its presence. For his relief a drachm of salicylic acid made into a paste, with olive oil, is ordered, one third of the entire quantity to be applied every third night, and covered with a little sheet cotton. The parts to be thoroughly washed with soap and hot water, and the bandage to remain in position from one dressing to the next. This incident occurred in 1884, and since then he has had no further trouble with the "rheumatism."

CASE II—is a farmer, aged fifty-five, who for fifteen years has suffered from a stiff knee, although various remedies have been faithfully used. Whenever he steps on any thing a little above the level, so that the weight comes on the lame leg before it is straightened, he falls, and this is a frequent occurrence, often as many as twenty times in a day. The same treatment is equally

successful in this case, and, dating from February, 1885, his lameness is one of the things of the past.

CASE III—is a lady who walks lame from an affection of the knee, and, moreover, can not sleep by reason of the pain. Aged sixty-five, and a sufferer from lithemia, it would ordinarily appear to be one of those cases demanding constitutional remedies. Knowing the immediate benefit which is to be derived from local treatment, I determine to adopt that method first, allowing the constitutional treatment to follow. The result is all that could have been desired, the pain is relieved and the lameness disappears.

CASE IV.—A lady aged forty had an attack of rheumatism eight months previous, and presented for consideration a stiffened wrist-joint. There was ankylosis, so far as could be judged from appearances, but persistent use of the paste, though it acted as an escharotic, along with suitable manipulation, enabled her to regain complete use of both wrist and hand. Treatment was conducted for several weeks over two years ago, and her present condition is perfectly satisfactory. No other remedy was advised.

Since the introduction of lanoline I have used that as a basis for the paste, or ointment, adding a sufficient quantity of olive oil to reduce the mass to a proper consistency. The following formula has been found efficient and well adapted for the purpose:

R. Salicylic acid 1 part.
Lanoline 4 parts.
Olive oil, q. s.

M. et ft. ungt. Sig.—Apply as directed.

This ointment should be thoroughly rubbed on the part affected with the hand every night for three successive nights, then discontinued for the same length of time, when, if needed, it can be reapplied in the same manner. To protect the clothing, as well as to supply sufficient heat to the parts, the joint ought to be covered, either with sheet cotton or oil paper, the former when the skin is moderately tender, as the wrist,

elbow, and shoulder, the paper when the application is made to the ball of the foot or to the ankle.

The reason for using lanoline instead of the paste made after the original formula, is to be found in the fact that lanoline will readily absorb more than one half of its own weight of moisture—an item of importance when it is desirable that the medicament should penetrate the epiderm and reach the underlying tissues. Under the plan first outlined a considerable portion of the remedy remained on the cotton, and the effects were *nil*, but, with the lanoline ointment actively rubbed in and properly covered, the greater part will be found, on removing the dressing twenty-four hours later, to have been taken up, so that we shall have a correspondingly increased benefit from the use of a smaller quantity of the medicine, and, besides, there is not the danger from too much action upon the tissues.

CASE V.—A colored girl, aged twenty, had suffered for over a year from pain and stiffness in the right ankle-joint. No indications of specific taint, nor was there any history of rheumatic disease. Three applications of the paste, made after the foregoing formula, were sufficient to afford complete and permanent relief.

CASE VI.—A gentleman, aged fifty-five, whom I attended for an acute trouble, asked me to look at his arm and say if I thought it could be improved by any known method of treatment. He had suffered for many years from pain and stiffness in the whole arm; but the greatest pain was in the shoulder. Liniments, ointments, salves, and plasters of ever description had been used without avail, and he had consented to the use of the battery, to use his own expression, “until it bent him to the floor.” A single application of this combination was sufficient to afford relief, and he said if it ever hurt him again he would make another.

CASE VII.—Two years ago a gentleman, aged fifty-eight, applied to me for the relief

of long-continued sciatica. I should state, in this connection, that the patient was suffering from degenerative changes affecting the heart, and had been for a brief period under my observation. The sciatica had persistently resisted the most earnest solicitations of several physicians, but under my care the deep injection of chloroform produced comparative comfort for the period of nine months or so, when it returned with renewed vigor. He consulted me again in regard to the same malady in December, 1886, and he then informed me that he had understood from what I had said that my previous treatment was the last resort, and that for the preceding six months he had been testing the virtues of quack remedies and quack doctors. One fellow said there was dislocation of the hip-joint; so every time the patient visited him the dislocation was corrected, and, to assist in keeping it in position, the posterior aspect of the thigh was well sand-papered, and afterward a stimulating liniment applied. Another guaranteed to cure him with the battery, and took the precaution to get his pay in advance. But “hope deferred maketh the heart sick,” and lavish promises finally failed to produce a stimulating effect. The use of the ointment in this case for more than a week, along with small doses of strychn. sulph. and attention to the condition of the bowels, was productive of some apparent benefit, but the improvement was so slight that it was determined to discontinue it entirely, substituting for it small doses of rhus tox., one drop of a one-per-cent solution of the fluid extract being taken every four hours, and, to my extreme delight, in the course of a few days there was a marked improvement. It should be stated that during the whole of the treatment he had been advised to take suitable gymnastic exercises, the weather being such that he could not venture out of doors. The medicine was continued for several weeks with some modifications, but it was always given alone, and never was it exhibited at the time any

other medicine was in the system. It, however, was not sufficient to effect a complete cure, as it was found that changes in the weather had an untoward effect, so the local treatment was again renewed. This gentleman was dismissed in the early part of March in a condition so near bordering on health that it may be said to have effected a cure. It is difficult to believe that the almost infinitesimal dose of the rhus had any thing to do with the relief of the malady, but I have witnessed its efficacy in several cases of this nature, and, fearing that I may be prejudiced in its favor or blind to its faults, I deem it worth while to make a note of it in this connection.

CASE VIII.—Mrs. M., a married lady, aged thirty-six, had an attack of rheumatism about one year previous to calling on me. One of the knees had remained stiff and very painful, so that she walked lame, while her sleep was seriously interfered with by reason of the pain. The usual form of the ointment was applied, but, not understanding the instructions, the applications were made irregularly, the result being that she was rather discouraged. To explain, it may be advisable to say that the irregularity consisted in the application of the ointment *once*, then waiting three days, when another application is made, the third and final application being made after three more days have elapsed. These applications should invariably be made every twenty-four hours until three and even four applications have been made. A week at least should supervene between the first series of applications and the one following. However, in the case under discussion I suggested the application of small blisters the size of a ten-cent piece, by means of cantharidal collodion, and the effect was very satisfactory. After the skin had sufficiently healed over the ointment was reapplied, and I am happy to say that the pain and lameness disappeared. This case was relieved so completely as to establish the value of the treatment in such conditions as might have been thought incurable without operation.

EYE, EAR, AND THROAT.

ACUTE CATARRH
IN CHILDREN.

BY
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M. D.

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It is not always possible to measure the effects of what is too generally regarded as a very trifling matter, a common cold. If it were possible to prevent every cold, a large number of diseases resulting therefrom

would be prevented. The history of every chronic case of catarrh attests that the complaint began with colds in the head, and that the disease grew upon the patient almost imperceptibly, the first colds (?) being so trivial in character as to attract almost no attention.

It is well to bear in mind that at the inception of the complaint it required a great deal of exposure to render patients susceptible to colds, but as the disease progressed it required little or no exposure to contract cold after cold, and thereby becoming more seriously affected. This is verily clearly demonstrated by the longer continuance of each attack, and by the intervals between them becoming shorter, until they are obliterated altogether, a fresh cold coming on before the old one has disappeared. At this stage of the disease the sensitiveness of the membrane is usually much increased, to such a degree that the slightest draught of air, or the fall of the barometer, without the least exposure to out-door air, suffices to occasion an attack so severe as to involve the entire respiratory tract. So the prevention of these attacks of coryza or colds is of paramount importance to the patient. This prevention is frequently a very difficult undertaking, especially in those cases where there has been a catarrhal inflammation for many years, as the condition in these cases frequently invites a renewal of the colds. This susceptibility of the diseased mucous membrane usually yields by the combined influence of hygienic and thereapeutic meas.

ures, the patient becomes less liable to take cold, and the prominent and urgent symptoms of the complaint gradually fades away.

With the young especially, by the simple protection of the parts, and overcoming any constitutional dyscrasia, with proper hygiene, the great majority will get well.

The head covering, as worn by men and boys, is sufficient protection, but with women it is entirely different, the hat may rest on a portion of the front of the head, or vice versa, perched where ever fashion dictates, the patients' ears require to be stuffed with cotton to protect them from the wind, etc., whose mouth must be opened to allow respiration, whose nose requires the frequent use of the handkerchief, whose cough is the harbinger of her arrival, whose hollow cheeks and weak voice indicate the rapid inroads her catarrhal disease is making on her system. I believe it would be better should all sleep in night-caps, for is it not unreasonable to expect the head and the exposed (apparently) membrane of the nose to remain perfectly normal while the remainder of the body is well covered and protected?

Good, warm clothing, dry feet, and avoidance of frequent wetting of the hair are great hygienic aids to the prevention of this muchly-written trouble.

The hygienic laws, just mentioned, should be carred out by all patients, but especially with children are their effects most marked.

The catarrhal symptoms of children are more marked, and cause greater uneasiness and anxiety than those of adults.

The symptoms of an acute rhinitis may vary from a mere fit of sneezing, followed by hardly noticeable concomitant symptoms, to a severe systemic disturbance, manifested by fever, elevation of the temperature, etc. With the majority there is a sense of dryness and fullness in one or both nostrils, corresponding with the hyper-vascularity. A dull frontal headache soon begins, due to an extension of the inflammation by continuity to the frontal sinus, followed by creepy, chilly

sensations along the back. Intense itching in the nasal tracts causes frequent sneezing, and also the continual and ineffectual use of the handkerchief. If no attention be then paid to these attacks the membranes of the anterior nares become hypertrophied, with oftentimes a painful occlusion of the nares, anosmia or loss of olfaction.

The treatment in these cases should be especially constitutional with soothing local application. Locally, good results have been obtained from the use of

R. Cocainiæ mur. gr. iv;
Ac. Borici gr. x;
Aq. Dest. ad. ℥ii.
M. Filter. Use in atomizer.

The remedies for constitutional relief are innumerable, the best results with children having been obtained by the use of Tr. ac-onite, in drop doses every two hours, until subsidence of the trouble.

I firmly believe that the tendency is to use too much local treatment and not sufficient attention to the hygienic care and physical or constitutional development of the child.

MISSISSIPPI

VALLEY MEDICAL ASSOCIATION.

The Mississippi Valley Medical Association meets at Crab Orchard Springs, July 13th, 14th, and 15th. There are so many papers promised that the Committee of Arrangements will be greatly obliged if authors will send the titles of their essays to Dr. J. M. Mathews, Secretary of the committee, 580 Fourth Avenue, Louisville, Ky., before the 8th of July, in order that the programme may be printed in time for the meeting. The President, Dr. I. N. Love, of St. Louis, or the Secretary of the Society, Dr. John L. Gray, 70 Monroe Street, Chicago, will answer questions and receive titles of papers to be read. The arrangements for hotel accommodations, meeting halls, and every thing to secure the comfort of those who attend are complete. A large number of drug and instrument houses have already applied for space to exhibit their goods, and the Committee of Arrangements has secured the hall used as a bowling-alley for the convenience of exhibitors.

OBSTETRICS AND GYNÆCOLOGY.

PLACENTA PRÆVIA.

At a meeting of the Obstetrical Society of Philadelphia, Dr. Daniel Longaker said he desired to reopen the discussion on this subject to submit a few clear and distinct rules of practice in that grave emergency. In a recent debate in this society it had been quite evident that our ideas were not so clear as they should be. One of the methods of treatment, and the best one that had ever been pursued in the appropriate class of cases—a method which would be found the best in the vast majority—had even been regarded with skepticism.

He referred to the treatment by means of bimanual version after the manner of Braxton Hicks, a plan by which three operators—Behm, Hoffmeir, and Lomer—had saved ninety-two out of ninety-three patients under their personal care (*American Journal of Obstetrics*, December, 1884, p. 1242). He would like to detail briefly his last case. The patient, a multipara, aged twenty-eight, had called him at 4 P. M., April 19, 1887. The anticipated date of confinement was one month later. Eight days before date she had had a trifling loss of blood, but had not sent for him. He was called because of a sudden hemorrhage coming on without pain while she was walking across the room. It was difficult to estimate the quantity of blood lost—it was not more than half a pint. Arriving a half hour later he found that the os admitted barely two fingers. The placenta was on the right side at the margin of the internal os; a slight flow of blood continued; she had had a few pains in the hypogastrium. Bimanual version was at once decided upon; two fingers of the right hand in the vagina pushed up the head, while the left depressed the breech down toward the right side. As soon as the head was above the linea terminalis the right hand also manipulated from the outside, raising the anterior shoulder toward the left hypochondrium, the left hand con-

stantly manipulating the breech toward the pelvic brim. As soon as version was completed the two fingers of the right hand were introduced into the vagina and the membrane ruptured at the margin of the placenta. A leg was ready to drop into reach of the index finger; it was brought out, displacement of the cord being carefully avoided. The delivery was left to the natural efforts up to the expulsion of the shoulders. The arms were extended, and were easily brought down, and the head was quickly extracted. Hemorrhage was practically absent after the leg had tamponed the dilating cervix. The child cried almost immediately and had since thriven remarkably. There was slight post-partum hemorrhage, but not a single unfavorable symptom, and the mother was about on the ninth day feeling perfectly well. No anesthetic was used, and, as illustrating the case with which turning by the bimanual method might be done, he might say that the patient did not know this had been done. In order that our ideas might be as definite as possible, the speaker would emphasize the points made in narrating the history of the case by a few quotations from Lomer's valuable contribution: 1st. "Turn by the bimanual method as soon as possible." 2d. "Pull down the leg and tampon the ruptured vessels of the placenta with it and the breech of the child." 3d. "Do not extract the child then." 4th. "Do away with the plug as much as possible. It favors infection and valuable time is lost by its application." 5th. "Do not wait to turn until the cervix and os are sufficiently dilated to allow the hand to pass." 6th. "Turn as soon as you can pass one or two fingers through the cervix." 7th. "Use chloroform freely." 8th. "Rupture the membranes at the margin of the placenta. If this is not feasible, perforate the placenta." 9th. "The next part of the treatment is expectant. Experience shows that flooding ceases." So long as these results remain unsurpassed by those of any other

plan of treatment in the hands of different operators, were we not morally bound to accept these teachings? In large numbers (*op. cit.*) of cases, collected by Charpentier, Depaul, Simpson, Schwarz, Trask, Muller, and King, we had a maternal mortality ranging from 35 to 22.5 per cent and in the hands of single (*op. cit.*) operators Spiegelberg, Barnes, Hecker, Müller and Murphy, a mortality ranging from 16 per cent to *nil* in the cases of Müller and Murphy. It was also to be feared that harm might have been done by the vigorous defense of the tampon, and that there might be danger of going back to the old bad record. While it might, though rarely, serve a useful purpose in controlling a hemorrhage, it was a dangerous agent and one that could nearly always be superseded by the natural and safe tampon formed by the *leg and breech of the child*. The speaker could not better illustrate this than by a brief reference to one of the tampon's victims: A patient was tamponed, and when the os had been dilated she was delivered of a dead baby with the forceps. The record said she had died one week after delivery of septicemia. Another died six days after version, and presumably immediate extraction, for the autopsy showed rupture of the inferior segment of the uterus. His own record was seven cases; all the mothers saved and three of the children. He wished to plead finally the case of performing the operation, the necessity for action in the face of hemorrhage, and the efficiency of this natural tampon.

HYDRAMNION;
MALFORMATION
OF THE FŒTUS.

Dr. Longaker also said that the history of the following case, with a description of the peculiarities presented by the foetus, was submitted in the hope of contributing something to our knowledge of a disease the pathology of which was still involved in some obscurity. On January 1, 1887, Dr. E. I. Santee had requested the speaker to see with him Mrs. R., who had supposed

herself seven months advanced in her fourth pregnancy. She had always enjoyed good health. In her former pregnancies she had been delivered at term without complication. There had been no symptoms to call attention to any unusual condition until three weeks before the date of his visit. Her symptoms at that time were attributed to impending miscarriage. She complained of pain, especially in the umbilical and epigastric regions. This pain was much worse at night, so that large doses of opiates were demanded. He found her confined to bed; pulse and respiration normal; temperature subnormal, 97.5° at 4 P. M. Her abdomen was uniformly enlarged from the pubes to the ensiform cartilage, the girth at the umbilicus being thirty-seven inches. Percussion showed reasonance in the flanks, and fluctuation was quite distinct. On careful palpation, no trace of the foetus could be found. No foetal movements were noted, nor any foetal heart sounds. She had not felt life for four days. The uterine walls were firm and unyielding. The supra-pubic region was oedematous. Examination *per vaginam* revealed the cervix intact and the os externum patulous. The internal os admitted the index finger. Immediately over this was felt the tense amnion; it conveyed the impression of the membrane during a labor-pain. The diagnosis of hydramnion was concurred in, and it was concluded that, in the absence of symptoms of an urgent nature, it was best to treat the case expectantly. Three days later pains set in actively. The amount of fluid was large. It was estimated as certainly more than a gallon. Some inertia followed its discharge, for which ergot was given. The feet presented. Powerful traction was necessary, and extraction was accomplished only after the spinal column had parted. Convalescence was slow, but recovery was finally complete. The foetus, of six months and a half, was 34 ctm. long, and weighed 1,500 grms. The epidermis was macerated, and partially peeled off on the extremities. The

neck was the seat of a tumor, fluctuating in the greater part of its extent, of the size of an average full-term foetal head. It involved the anterior and lateral aspects, and extended from mastoid to mastoid, and, with the head in a position of moderate extension, it reached from the border of the inferior maxilla to the ensiform cartilage. The integument over the swelling was thin and almost semi-transparent. The entire head was œdematous, the swelling, however, being most marked over the frontal and facial region. Ossification of the two halves of the inferior maxilla was imperfect. On section, the pleural, pericardial, and peritoneal cavities were found moderately distended with serum of a faint-red color. The heart was greatly hypertrophied. It was of fully twice the size of that of normal foetus of a corresponding period of development. The kidneys and supra-renal capsules were normal. No abnormality was found in the remaining abdominal and thoracic organs. The stump of the umbilical cord was œdematous. The placenta could not be examined, as it had immediately been thrown away by the nurse. The spinal column was severed in the cervical region. The trachea, œsophagus, and vessels were also torn across. The head was attached to the trunk solely by the integument and muscles of the neck on its anterior aspect. A portion of the brain-like mass of the tumor had escaped through this laceration. The large vessels passed through the mass. Dr. W. J. Haehrlen, who kindly examined the specimen, reported that it was a myxoma. There could be no doubt that in this case the excessive amount of fluid was of foetal origin. It was greatly to be regretted that the placenta could not be examined. The hypertrophy of the heart was due to the pressure exerted on the great vessels of the neck by the tumor. In like manner this had interfered with the return current of blood, and hence the œdema. The same condition must have existed throughout the entire venous system. In-

creased pressure existed in the umbilical vein, and hence transudation into the amniotic cavity by the capillary network of Jungbluth, which had been shown to be persistent at term in hydramnion (Lusk, "Science and Art of Midwifery," p. 288). It was also known that an increase of pressure in the umbilical vein caused a rapid transudation into the cavity of the amnion (*op. cit.*). It was worthy of note that the kidneys were not hypertrophied, and that there was no indication of increase of functional activity in distension of the bladder. The œdematous condition of the cord might also be regarded as significant of increased pressure in the umbilical vein. This increased pressure, primarily due to embarrassment of the heart, must be regarded as the direct cause of the rapid and abnormal accumulation of fluid in the cavity of the amnion. Dr. Robert T. Wilson ("A Contribution to the History of Hydramnios," *American Journal of Obstetrics*, January, 1887) had recently given an interesting *résumé* of this subject. His case was of peculiar value in so far as it enabled us to determine the mooted point of maternal origin in some of these cases. A careful dissection of the foetus by Professor Welch failed to reveal any abnormality. The enormous amount of seven gallons of fluid had accumulated.

Dr. Kelly was glad that some of our countrymen had at last taken up this interesting subject in a scientific manner, pregnant as it was with important issues on other questions. The admirable paper of Dr. Wilson, of Baltimore, deserved special mention. There was no doubt concerning the correctness of Dr. Longaker's view that the associated hydramnios had been due to the hypertrophy of the heart, which in turn had depended upon the pressure of the tumor upon the large vessels of the neck. The possibility of transudation from the cord and the placenta surface under such mechanical conditions had been abundantly proved. The most interesting cases were

such as had been recorded by Schatz and Kustner, in which the hydramniotic twin had been shown to have a heart enlarged by keeping up the anastomotic circulation with the weaker twin.

AXIS-TRACTION
FORCEPS.

Dr. B. C. Hirst exhibited the forceps of von Hecker, used in the Frauenklinik at Munich. The Poulet attachment had been added to the original forceps.

Dr. Longaker remarked that the idea of making traction by means of tapes attached through perforation of the blades was suggested by Chassaigny, of Lyons, as early as 1865.

Dr. Kelly was pleased with the forceps of von Hecker, and considered it better adapted to the Poulet tractor than the Hodge or any straight forceps. The very fact of attempting to use a long, straight forceps was an attempt to realize thus, in some measure, an axis traction (according to the present use of the term, which meant a direct pull). The Poulet forceps which Dr. Kelly had previously exhibited was not, as stated by Dr. Longaker, a modified Chassaigny, but combined ideas developed by Hubert, of Louvain, and Chassaigny. The former had shown the necessity of pulling in the axis of the pelvis to make a traction which would be at the same time effective and non-injurious to the mother, while Chassaigny had drawn special attention to the importance of grasping the child's head in such a way that the pull came as nearly as possible in the center of the figure of the child's head. The speaker had within a week used the Poulet forceps in the following interesting case: Mrs. K. had a justo-minor pelvis. She had been delivered about two years before by her present physician, a skilled accoucheur, of an average child with the forceps. This time, however, the physician had made long unsuccessful attempts with a long Simpson forceps, when he called the speaker, declaring that the head was locked at the brim, and that it was utterly

useless to try to move it with any ordinary instrument. At his request the speaker applied his Poulet-Levret forceps with the woman lying on her back. The Levret blades were simply adjusted to the head, which was engaged at the brim, completely flexed. The first few tractions on the bar seemed to make slight but distinct progress. The head under the following traction efforts moved steadily, slowly, and quietly down the axis of the pelvis, rotating, and, although large, emerged at the outlet. No fixation lock or screw was used to compress the head. It took a long time to release the body, but finally a male weighing 13½ pounds, measuring 60 cm. in length, and with a head 47½ x 37 cm. in its largest circumference, was extracted. The child was profoundly asphyxiated, but revived under syringing and douching. This case was but a type of many, some of which he had announced to the society, in which the Poulet-Levret forceps had done him such excellent service. He now used no other instrument.

ABSCESS OF THE
OVARY, WITH
PYOSALPINX.

Dr. J. M. Baldy related the following history: A woman, thirty-one years old, married thirteen years, five children, one miscarriage, always healthy, and menses regular before marriage. Had a good "getting-up" from all her labors, excepting the last, which had occurred seven years ago. She gave a history of some inflammatory trouble at that time, which had kept her in bed for some weeks. She had since bled irregularly and profusely. She had had constant pain in her abdomen whenever receiving a slight jar, or when long on her feet, as well as on coition. Her general health had been poor, and she had lost considerable flesh. The speaker was called to attend her on the 31st of March, and found her on her back, suffering with general abdominal pain; constipation; tender, swollen, and tympanitic abdomen. She had been sick for a month, and had been getting gradually worse. An

examination *per vaginam* showed the uterus in good position, normal in size, with a mass running from the right corner to the pelvic wall; the mass was larger than the fundus uteri, and firmly bound down; painful on pressure. The pulse was 120°, and the temperature high. As she did not improve under general treatment, abdominal section was performed April 4th. The left tube and ovary were found healthy; the right tube and ovary were removed. The ovary contained an ounce or more of pus, and the tube was distended with pus. Adhesions were general. The mass was adherent to absolutely every thing within reach, and, as was seen by the specimen, there was hardly a spot on it free from these strong adhesions. Monsel's solution was used to check bleeding from points of adhesion to intestines, and a glass drainage-tube was put in. After the third day there was a free discharge of pus from the tube, and the abdominal cavity was thoroughly washed out four times a day with boiled water. The pulse fell below 100, and the temperature was lowered, and neither exceeded this point subsequently. The tube was removed by the fourteenth day, and the patient made a good recovery, not only from the operation, but from all her old troubles. Her pulse and temperature were normal; her pains had disappeared entirely, her peritonitis was cured, her menses had appeared at their proper time and in proper quantity, and she was rapidly gaining her lost flesh. The result had been altogether gratifying. The case was of particular interest, inasmuch as it illustrated very well the class of inflammatory tubal troubles arising from the puerperal state to which the speaker had called the attention of the society the month before. The origin was clearly septic, and not traumatic. These women got along apparently well for a few days after delivery, and suddenly then began to develop alarming symptoms. The fact of the delay in the development of trouble was a clear proof that it was non-traumatic and

threw all the evidence in favor of the septic origin, and then the micro-organisms of puerperal septicemia had been found in these cases. This particular case was clearly one of this character. The patient had been perfectly well until her last labor; she then developed inflammatory trouble a few days after the labor, and had been a sick woman ever since. There was, so far as could be ascertained, no history of gonorrhea in her case, and he would say from his knowledge of the woman that her statements were to be absolutely believed so far as she herself knew.

A NEW LEG-HOLDER.

Dr. McBride exhibited a new *Beinhalter*.

Dr. Kelly said that this apparatus was an excellent substitute for the heavier, more clumsy, and expensive ones commonly used. He then exhibited his own, which he considered attained the same ends even to a greater degree of perfection. It consisted simply of two collars of muslin padded with hair-cloth, which fitted the thighs close to the knees. Through these collars passed a broad muslin strap, also well padded, which was provided with a snap-hook at each end. The snap was caught in a ring on one collar placed under the knee, and the strap was then brought under one arm, around the back of the neck, and down over the other shoulder, and the other end snapped in the opposite collar, also in place above the knee. The distance from knee to knee, by this course, when properly flexed on the abdomen for operation, was twenty inches or less. A simple device of rings on the inside of the strap allowed of still further shortening. The speaker did not consider the cross-bar between the knees at all necessary. His *Beinhalter* could be carried in the pocket. He described that of Clover; also gave blackboard illustrations of Fritsch's, Gendny's, and Sängers'. Most of those in use in Germany, while convenient in a large clinic, were too clumsy to be carried about. Sängers' was by far the simplest and most convenient for general use.

Dr. Parish agreed that a *Beinhalter* was desirable, and described one that he used that was attached below the knee.

PATHOLOGY AND HYGIENE.

EXAMPLES OF
RARE FORMS
OF DISEASE.

BY

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SON,

F.R.C.S., F.R.S., LL.D.

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gery at the London Hos-
pital, Vice-President
of the Royal Col-
lege of Sur-
geons.*[*British Medical Journal.*]

XXII.—*Note as to the Inheritance of Tissue Proclivities.*—There are some clinical facts which make it seem probable that diseases of special tissues and parts may be inherited as such, and quite independently of the inheritance of diathesis.

The best illustrations

that I could quote of this would be from diseases of the eye and diseases of the skin.

A young lady, who was apparently in good health, was the subject of relapsing ophthalmia, attended by phlyctenulæ and ulcers. It had begun at the age of four, and it still persisted when, at the age of fifteen, she came under my observation. There was a history that her maternal grandmother had suffered in a similar way through exactly the same period of life, after which her eyes had got quite strong. I attended a rather delicate young lady, the daughter of a surgeon, for central ulcerations of the corneæ, which left nebulæ when they healed. On comparing these some time afterwards with some that were present in her mother's eyes, I found that they were exactly alike. Her mother had suffered at the same age as her daughter afterwards did. The inheritance of various forms of local skin disease, more especially on the hands and fingers, is very constantly observed.

A gentleman, whose health was excellent, came under my care, at the age of fifty-seven, for psoriasis of the finger-nails. He had been under treatment for psoriasis of his hands and feet ever since the age of fifteen. He told me that his mother had had dry hands, and that one of his children presented the same condition. In all three the hands were always worse in cold weather, the skin chapping and peeling. It was clearly an example of local peculiarity of tis-

sue rather than of any disorder of the general health.

It would seem not improbable, in connection with this inheritance of tissue proclivity, that conditions which are in the first individual who suffers the matters of personal acquisition, may become subsequently family inheritances. The case which I have recorded in the *Medico-Chirurgical Transactions*, in which a lad, whose mother was bald from alopecia areata, acquired at the age of six, was born almost hairless, and without mammary glands, is the most remarkable instance which I can adduce of this kind. Probably, however, it is only an extreme instance of what in minor forms is very common.

XXIII.—*On conditions allied to Raynaud's Disease.*—Under the name of Raynaud's disease we recognize a condition of enfeebled circulation in the extremities which gives a tendency to symmetrical gangrene of the tips of the digits. There are other conditions of altered nutrition in the same parts, and in association with a similar class of causes, but in which gangrene is not threatened. I have described what I ventured temporarily to name "last joint arthritis"—a very peculiar affection in which the terminal joints of all the digits suffer from disorganizing inflammation of a more or less rheumatic type. It is definitely influenced by weather and exposure to cold, so much so that it might be considered a sort of articular chilblain. It is usually associated with inherited gout, in combination with feeble circulation and liability to chilblains.

In the following case we have neither gangrene nor arthritis, but a peculiar erythematous inflammation beginning at the digit-tips, causing destruction of the nails, and gradually spreading upwards. Miss P. was sent to me by my colleague, Mr. Couper. Her age was forty-one; she inherited gout, was a total abstainer, and of decidedly feeble circulation. Her fingers had for long been "liable to die and become white." For fifteen years she had suffered much from redness of the fingers and toes, which was

worse in cold weather, and which she had considered chilblains. In childhood, however, she had not suffered from chilblains more than others. Five years ago her nails had begun to suffer. Most of them when I saw her were destroyed, being represented only by thin, horny lines which crossed the nail lengthwise. It did not appear that the nails had ever been thickened. They became thin and fibrous. The whole fingertip was withered. The fingers, from the tip almost to the knuckle, were of a dusky-red color, smooth, glazy surface, with some slight tendency to desquamation. There was no moist eczema, the condition resembling rather lupus erythematosus. The redness was, however, not well margined, as in the latter malady, and neither the face nor the ears were in any way affected. I saw the patient on a warm day, and was told that in cold weather the swelling was much greater. The toes were in exactly the same condition as the fingers, and although some suffered more than others, not a single digit had escaped.

By some the condition which I have described would be diagnosed as dry eczema, by others I think it would be considered erythematous lupus, and others might be content to name it chronic onychitis. Undoubtedly it is much like all these diseases, and partakes of the features of all. Especially, perhaps, does its external resemblance come near to eczema. We know, however, of no type of eczema which attacks all the digits at once, and restricts itself to them whilst persisting without cure for many years. Clearly the most important feature in the case, that which leads us nearest to the cause, is the fact of the disease attacking the tips of the digits and having been preceded by the liability to "die." Had the patient, in the earliest stage, been sent to live in a warm climate, not improbably the disease would never have progressed. If this be true, the condition is essentially a chilblain, that is, a chronic erythematous inflammation of a peripheral part induced by

cold; still it differs from chilblains, for the latter do not usually destroy the nails, do not persist continuously all the year, and seldom attack all the digits at once and in the same degree.

If I were to attempt a pathogenetic analysis, it would be this: Inheritance of gout, attended, as it so often is, by peculiarities of circulation; inheritance of tissues prone to chilblain inflammation; exposure to a cold climate; and, finally, enfeeblement of general vigor by too abstemious regimen.

XXIV.—*Notes on the Earliest Symptoms of Locomotor Ataxy.*—The following case is of interest in reference to the very earliest symptoms of ataxy. A very intelligent medical student was himself the subject. He told me that, three years ago, he had had syphilis, with eruption and all the usual phenomena. Although he had treated himself with specifics, he had relapses of eruption almost ever since, and only got rid of a troublesome psoriasis palmaris for a few months before I saw him. In the Easter of 1886, after a long exposure in cold air during the day, he woke up next morning with deafness in the left ear and loud ringing in both. For this he at once took iodide freely, and got well. The symptom which had excited his alarm and brought him to me was tingling in the feet. This tingling had for some weeks been almost constant, and had been preceded by a sensation of "pins and needles." It affected his left foot much worse than the right, but the right also to some extent. He had no real pain. His patellar reflex was good, and the pupils acted well. He could walk well, but if he got tired the tingling in the feet got worse. Before the occurrence of this tingling, he had been for eighteen months liable to what he called rectal pain, which was, I have no doubt, a spasm of the sphincter. It used to wake him in the night, and keep him awake from a few minutes to half an hour.

Another case at present under my observation is noteworthy on account of the absence of pupil-symptoms or lightning pains,

although the gait is very marked. Mr. N. had a hard chancre, which lasted two or three months, six years ago. He had treatment, and does not recollect any secondary symptoms. He married two years later, and has now three healthy children. He has always lived a regular life, and was never excessive in sexual indulgence. About three years after his marriage he began to experience numbness of the lower part of the abdomen and stiffness of the legs. "I do not feel to have the free action in my legs that once I had." "If I close my eyes I feel as if I should fall." "A year ago I used to play football; now I could not run two yards for any motive whatever." These were the expressions used when he came first to me on February 23, 1886. I found that his gait was most characteristic, and that he could not stand steadily with his eyes shut. The patellar reflex was wholly absent, but his pupils were of normal size, and acted well on exposure to light. He said that he had never had severe pain in his legs, but only a disagreeable, heavy, numb feeling, attended by a sensation of cold over the abdomen. His bladder at times was rather sluggish, and his sexual function was weaker than formerly.

My advice to Mr. N. was that he should be most careful as to sexual intercourse and other causes of spinal fatigue, and that he should take for a long time small doses of mercury. A year later he came to me again. He was, on the whole, better, but the essential symptoms were still present. He could walk better, and did not feel inclined to fall when his eyes were closed, but the knee-jump was wholly absent. The pupils still acted well. He had taken mercury the whole year, but as he had also reduced his sexual intercourse to once a month it was impossible to say whether the arrest of symptoms, which were before rather rapidly developing, was due to what was given or what was forbidden.

XXV.—*An example of Enormous Overgrowth of the Papillæ of the Tongue on its*

Whole Surface.—An interesting condition of tongue—being, however, simply an extreme development of what in minor degrees is common—was presented in the case of Mr. B. This gentleman, a surgeon, came up for what he called "cracks in the tongue." The so-called cracks were, however, simply deep fissures between masses of overgrown papillæ. The surface of the tongue was tolerably level, but marked with lines in a sort of pattern more or less like a fern leaf. On touching the tongue, the papillæ could be laid on each side, and made to exhibit deep depressions between their rows. There were no ulcerations whatever, and no sclerosis. It was not possible to make any distinction between filiform and fungiform papillæ, all being coarse and large. There was very little fur, and on the right side of the median cleft a well-marked pink streak passed, due to some alteration in the apices of the overgrown papillæ.

Mr. B. had never suffered from any special disease; his attention had been particularly directed to his tongue of late by curious shooting sensations in it, which, he said, came on if he talked much; it was not in the least sore in eating. I believe that what he complained of were purely nervous phenomena, but they had made him anxious as to the possible development of cancer. They had followed what he called "a nervous breakdown" six or eight months ago. This "breakdown" had been an attack of giddiness, attended with a feeling of nausea, and followed by great muscular weakness; he had been sent away from home, and had regained his health. I have seen this condition of general papillary hypertrophy in very many cases, and with some differences as regards the condition of papillæ involved. In most cases it is obviously the filiform ones which are chiefly implicated; these may be seen to be very much branched at their apices, looking almost like the tops of a field of oats. In the present instance there was no branching, and the surface was minutely nodular all over. When the fili-

form only are involved the fur usually accumulates on them, which, in this instance, it did not.

XXVI.—*On Notches in the Upper Central Incisor Teeth which resemble those of Syphilis.*

There is a state of notching of the upper incisor teeth which affects the two central ones of the permanent set, and produces a condition very deceptively like that of syphilis. The notches are central, and very conspicuous. A chief point of difference from the syphilitic tooth is that the tooth is usually wide instead of narrow at its free edge. Syphilitic teeth almost always show narrowing, like a screw-driver, as well as notching. Another point of difference is that the teeth, when looked at carefully, are seen to be craggy and very hard, not worn as the syphilitic tooth. In a very marked example of the pseudo-syphilitic notching, the father of the patient told me that the condition was hereditary, and the youth's mother had teeth of the same kind. In this instance there was no history of fits in infancy, or of the use of mercury or teething powders. Nor, indeed, were the conditions those of stomatitis, or mercurial, teeth. The defects occurred in pairs of teeth, and did not damage the whole row. Nor were the first permanent molars—the test teeth of the mercurial set—involved. I have, in several other examples of craggy teeth, been assured that the peculiarity was in the family. I feel certain, therefore, that we must admit inheritance as an occasional explanation of peculiarities in the form of teeth. I was once shown, in one of the Paris hospitals, a pair of teeth, such as those which I have above described, and great surprise was expressed that I could not admit that they were characteristically syphilitic.

XXVII.—*The Tongue in Leprosy.*—The patient whose case supplies the preceding note, Mr. D., is at present suffering from a most severe development of tubercles over the whole of his face and ears, and he has at the same time lumps in his tongue. These lumps are chiefly in the middle region, pos-

teriorly. They project as ridges and bossy masses, which, in parts, look almost warty. There is a certain amount of induration in the substance of the organ almost as far forward as the tip. It is exactly the sort of ill-defined lumpy and ridgy induration which we often see in syphilis. There are fissures between the lumps, but no ulcerations. I have but very rarely had the opportunity of observing disease of the tongue in leprosy. I believe it is rare, for both at home and abroad I have seen many lepers.

XXVIII.—*Oh "going to sleep" of the limbs.*

The symptom which patients call "going to sleep" of the limbs, and especially when it occurs in the lower extremities, is one of considerable interest. It is a sort of numbness attended by defective perception of size, so that the limb feels unwieldy and large. There may be no actual anesthesia, and no "pins and needles." An intelligent patient, whom I pressed to describe his sensations, said it was exactly like what one feels after the foot has been asleep from pressure on the chair, and the tingling of "pins and needles" has just passed off. The following case may illustrate this symptom:

A healthy-looking farmer, aged forty, came to me complaining chiefly of "sleepiness in his lower limbs." It had been present almost continuously for two years, being, however, at some times much worse than others. It gave him great annoyance, for although he could walk well, and was accustomed to ride much on horseback, yet his legs never felt comfortable; they were always, as he said, numb, "just short of the pins and needles' stage." The condition was pretty much the same in both the lower extremities, and did not affect any other part. The concomitant symptoms left no doubt that it was a part of locomotor ataxy. The pupils were small and sluggish, the patellar reflex was absent, and severe pains had been experienced in the legs on many occasions; the pains had been of the ordinary gnawing or burning kind, but it was

interesting to note that they were as a rule worse in the daytime, and were better in bed. They were invariably worse when fatigued, and occasionally, when extra-tired, they had kept him awake all night. The legs were occasionally restless, and he could not keep them still for more than a few seconds at a time. The connection between the pains and want of rest was curiously illustrated by the patient's statement that if he missed an hour's sleep which he was accustomed to take in the afternoon, he invariably had a bad night from pains in the leg. It was his belief that iodide of potassium had frequently relieved his pains, but as they were of irregular occurrence it was difficult to feel certain on the point. This patient's antecedents were of much interest, and I must suggest three causes possibly acting in combination as those to which his disease was due. He had suffered from syphilis fifteen years ago, he had been married three years, and he had on one occasion exposed himself to unusual fatigue, accompanied by wet and cold. From the occasion last alluded to he definitely dated the commencement of his ailment. He had been out at a sham fight with his corps of volunteers on a very cold and rainy day. He had been on his feet from eight o'clock in the morning till eight in the evening, wet through, and often standing still for an hour or two at a time. When he got home in the evening he found, for the first time, that the backs of the thighs were numb, and after this it soon extended to his legs. As regards the syphilis, it appeared that he had been well treated, and had no secondaries. He had one healthy child.

XXIX.—*Perforating Ulcer of the Septum Nasi in a Case of Common Lupus.*—An interesting example of the perforating ulcer of the septum in definite connection with lupus came under my observation in March, 1886. Miss A. K., aged 30, was sent to me by Dr. Ransome, of Nottingham. She was a slim and delicate-looking woman, and although neither of her parents had died of

consumption, several aunts, uncles, and cousins had done so. In early life she had suffered from chilblains, and for ten years or more she had been the subject of lupus. The disease had come to an end on her nose, having destroyed the tip and the alæ, but leaving a sound cicatrix. On the right arm also there was a large area of sound scar, which had been left after lupus-ulceration. On her right cheek there was another large sound scar, but with a thick patch of non-ulcerated lupus growth, the size of a shilling, on one edge. This patch was of the ordinary semi-transparent apple-jelly-like growth, and was conclusive as stamping the case of one of common lupus.

I now come to the condition of the septum, which was the feature of most interest. There was a perforation large enough to have admitted a shilling, the front edge of which came to within an eighth of an inch of the columa, but without causing any deformity. Posteriorly its edge could be seen with tolerable ease, and although there was no thickening it was clearly not quite sound, for it bled on the slightest touch. At other parts the edge of the ulcer seemed quite healed. No bone ever came away, and no disease could be discovered in other parts of the nares or in the mouth.

The case was a good one in proof of the association of common lupus with hereditary tendency to tuberculosis, and of the association of the perforating ulcer of the septum with common lupus. There was not the slightest reason for suspecting syphilis. Indeed the manner in which the ulceration of the tip and alæ of the nose had healed was quite conclusive as to its nature.

DEATH OF

M. VULPIAN.

LeProgres Medical,
May 21, 1887.

French medical science has been tried in a cruel manner. Professor Vulpian, the

eldest dean of the faculty of medicine, succumbed, after a few days, to infectious pneumonia. We will render, in a few days, the homage that is due to his memory.

BOOKS AND PERIODICALS.

NERVOUS
DISEASES
AND THEIR
DIAGNOSIS.

A treatise upon the Phenomena Produced by Diseases of the Nervous System, with especial reference to the recognition of their causes.

BY

H. C. WOOD, M. D.,
LL. D.

*Member of the National
Academy of Science.*

Philadelphia: J. B. Lippincott Company, 1887.

Philadelphia Hospital. The nervous clinic at the hospital of the University of Pennsylvania, comprising over five hundred new cases annually, has been under the charge of the author. He tells us that in his youthful days he also served as resident physician in an insane asylum; and more recently he has been connected with several such institutions as a consultant. In addition to all this, former pupils have strongly urged the preparation of this work. Dr. Wood acknowledges his indebtedness to Dr. George E. Schweinitz for much assistance rendered in various ways and places, but especially in the anatomical portions of the work, in the chapter on eye symptoms, and in the preparation of the index; and to Mr. Joseph McCreery for proof-reading.

There is a strange absence in many portions of this work of that fascinating style which has won for Dr. Wood a considerable portion of his reputation as an author. In fact, this treatise has the appearance of a crude mass of imperfectly prepared material. Under the head of multiple neuritis the author says, "There is a group of cases in which paraplegia may develop very rapidly and deepen into general palsy, with symptoms simulating those of true ascending paralysis, in which the lesion is an inflammation of the nerve trunks. As much may be ac-

This is a duodecimo of five hundred pages, the author's apology being that the work is founded upon a hospital service of nearly twenty-five years, fifteen of which was spent in the medical wards of large civil and military hospitals, and the last ten years in the wards for nervous diseases of the

complished by treatment, it is important to recognize the true nature of multiple neuritis." This form of statement is found throughout the book; and whilst the work possesses much intrinsic merit, it may be said to contain a vast amount of imperfectly digested material for a much more elaborate treatise. In Strümpell's Text-book of Medicine may be found a far more satisfactory clinical presentation of neurotic phenomena; and although the student must encounter not only the difficulties of an imperfect translation from the German, ambiguities of form, and the awkward manner of expression will be found to more than counterbalance this in Dr. Wood's treatise. Dr. Wood is a professor in the University of Pennsylvania, yet he carefully ignores this, and dedicates his book to Surgeon John S. Billings of the United States army. To conclude, we may say the material herein collected is of great value; much of it is new; nearly all of it is practical; yet it can scarcely be appreciated by the student, nor made use of by the practitioner. We earnestly hope the author may be induced to take up the work of revision at once, and, at an early day, present us with a more elaborate and carefully prepared treatise on this, his favorite theme.

A COMPEND OF
OBSTETRICS FOR
STUDENTS AND
PHYSICIANS.

BY

HENRY J. LANDIS,
A. M., M. D., ETC.

Third edition, revised,
with new illustrations. Philadelphia: P. Blakiston, Son
& Co. 1887. Price, \$1.00.

The very handsome compend of Dr. Landis has undergone revision at the hands of the editor, whose name does not appear. The work, however, was originally written by a gentleman in every way competent by education and experience;

and it may be fairly said that the science and the art of obstetrics are fully elucidated in the text. The whole work is gotten up in the form of questions and answers, and it has already won great popularity with the profession.

EVACUANT
MEDICATION,
CATHARTICS
AND EMETICS.

BY
HENRY M. FIELD,
M. D.

Philadelphia: P. Blakiston, Son & Co. 1887. Price, \$1.75.

This is a neat little duodecimo volume of 284 pages. The author says, in obedience to frequent urging, he at last consents to offer to a wider audience the matter which has been addressed to a medical

class for many successive years. The material of the book, he says, has been gathered largely from the clinical observation of an active general practice, aided by monographs and notes from the French, English and American journals.

Cathartics are first considered, beginning with croton oil.

The general plan is to give the history of the medicine as to its source and uses, the pharmaceutical preparations, the general modes of action, contra indications and the best modes of administration.

Under the head of cholagogues, the author suggests the importance of close discrimination in the choice of those purgatives which shall specifically affect the liver so as to promote the secretion of bile. In a manner entirely satisfactory to himself, no doubt, he easily establishes mercury as the prince of bile drivers. It is often amusing to notice the facility with which derangements of the liver are recognized by those practitioners who employ no instrumental aids in diagnosis. It must indeed be a rare gift, and bordering closely on the supernatural, to be able, at a mere glance at the complexion and tongue, and, in rare instances, to feel the radial pulse, and say what is the matter with the liver. Dear reader, do not understand that we mean to charge Professor Field with exercising this power; but the innocent simplicity which characterizes his rejection of the report of the Special Committee of Inquiry of the British Medical Association of the supposed cholagogue action of mercury, and his prompt acceptance of Professor Ruther-

ford's and himself, based solely upon the imagination.

Professor Field's treatise is interesting, and, we may say, valuable; yet he seems so entirely dependent upon what is called experience and observation we feel he does himself great injustice as an author to accept so much rubbish from so many questionable sources.

"The seventeen general principles concerning the action of Cathartics" should not be lost sight of in prescribing.

The best part of the book is reserved for the last. It is entitled "Emetic Medication," and is made up of all the main points in the observations of the best writers on this subject. It contains some points that are alike creditable to the author and valuable to the student.

(QUIZ COMPENDS.)

A COMPEND OF
SURGERY FOR
STUDENTS AND
PHYSICIANS.

BY
ORVILLE HORWITZ,
B. P., M. D., ETC.

Third edition, revised, enlarged and improved, with ninety-one illustrations.
Philadelphia: P. Blakiston, Son & Co 1887. Price, \$1.00.

In this excellent new series of manuals for medical students may be found many works of great value. The one on surgery by Dr. Horwitz, having already reached the third edition, needs scarcely more than bare mention. In this edition the articles on antiseptic sur-

gery, mortification and gangrene, urethrotomy, burns and scalds, venereal diseases, retention of urine and inflammation, have all been re-written. All reference to diseases of the eye and its appendages is omitted. Other portions have been revised, and somewhat enlarged. The third edition is such an improvement on former issues as to bring this manual quite up to the latest advances in both the science and the art of surgery. The illustrations are practical and for the most part original.

One dollar enclosed to the publishers will secure a copy.

**A COMPEND
OF MEDICAL
ELECTRICITY,
AND ITS MEDI-
CAL AND SURGI-
CAL USES.**

BY

CHARLES F. MASON,
M. D.

Assistant Surgeon U. S. A.

With an introduction by
CHARLES H. MAY, M. D.
Philadelphia: P. Blakiston,
Son & Co. 1887.

ism, electricity, from different sources and of different sorts; forms of electrical apparatus, for medical and surgical uses; electro-physiology; electro-diagnosis; electro therapeutics; and electricity in surgery. The work, though small and unpretentious in form, is a brief abstract of all the practical points named in the contents.

**ELEMENTARY
MICROSCOPICAL
TECHNOLOGY.**

A manual for students of Microscopy in three parts. Part I. The Technical History of a slide from the Crude Materials to the Finished Mount.

BY FRANK L. JAMES,
PH.D., M. D.,

President St. Louis Society of Microscopists, member American Society of Microscopists, editor St. Louis Medical and Surgical Journal.

St. Louis Medical and Surgical Journal Co., Publishers. 1887.

other excuse for frequent repetition than the honest attempt to describe each step in plain terms. The student may read this manual with such a feeling as one experiences when watching a skilled manipulator in his laboratory. It has in every paragraph the stamp of experience rather than the smell of midnight oil mingled with the odor of musty tomes. The author who knows the smearing or running qualities of his mounting

The Medical Briefs are a new series of publications. It would seem that the Blakiston's are determined to supply every thing that medical students desire. The Compend of Electricity, by Dr. Mason, has a well-written introduction, by Dr. Charles H. May. It deals with questions of magnet-

ism, electricity, from different sources and of different sorts; forms of electrical apparatus, for medical and surgical uses; electro-physiology; electro-diagnosis; electro therapeutics; and electricity in surgery. The work, though small and unpretentious in form, is a brief abstract of all the practical points named in the contents.

The well-known author of this handsome little manual has done a great service to the student in the preparation of a work suited to the daily demands of the laboratory. The mere naming of a process, however simple within itself, does not meet the requirements of the student for detailed information. Dr. James makes no

other excuse for frequent repetition than the honest attempt to describe each step in plain terms. The student may read this manual with such a feeling as one experiences when watching a skilled manipulator in his laboratory. It has in every paragraph the stamp of experience rather than the smell of midnight oil mingled with the odor of musty tomes. The author who knows the smearing or running qualities of his mounting

media, and who knows the imperfections of his own work is so rare that he should, when found, be mounted with the greatest care on the best shelf for constant reference. We await with increasing interest the appearance of the two succeeding parts.

**THE REFRACTION
AND ACCOMMODA-
TION OF THE EYE,
AND THEIR
ANOMALIES.**

BY

E. LANDOLT, M. D.,
PARIS.

Translated under the au-
thor's supervision, by

C. M. CULVER, M. A.,
M. D.

Formerly Clinical Assistant to the Author, Member of the Albany Institute, etc.

With one hundred and
forty-seven illustrations.

Philadelphia: J. B. Lip-
pincott Co. 1886. Cloth,
8vo. pp. 600.

[CONCLUDED.]

If we are to have one method of estimating angles for refracted light in the eye and an entirely different system of determining the refracting power of optical instruments of mechanical design, we shall constantly diverge from the true line of scientific inquiry in all our attempts at solving optical problems. It is time a general understanding was reached upon this question; and we ven-

ture to hope it may lead to a return to the universally approved method of Euclid. Surely no higher endorsement should be required than that of Sir Isaac Newton's *Principia Mathematica*, and the first contributions to the literature of astigmatism by Mr. Wells, Mr. Airy, and Dr. Thomas Young; and the standpoint of the observer is the only correct position from which calculation should ever be made.

In meridian 100° the patient has normal refraction. Who determines that meridian, the patient or the observer? How is it determined? Either by the position of Donder's stenopæic disc, or by the axis of the trial cylinder. How is it determined? By the observer, who of course looks upon the oblique line as it appears to him; and he has no right to fancy himself occupying the position of the defective eye, for the reason it is not common for scientific men to make observations as from the standpoint of the

object, but always from that of the observer. If it be agreed, however, to reverse positions, and calculate as from the observed eye, let that be generally understood; but by all means let us come to a common understanding concerning this whole matter.

It is a great misfortune to undertake to recognize a certain amount of accommodative force in the hypermetropic eye, and in that way to make an allowance for the uncorrected error of refraction. It is absurd to suppose that an eye could suffer any prolonged inconvenience from a perfect correction of its error of refraction. If the mechanic, by exercising certain muscles, acquires greatly increased strength in the right arm, it would be absurd to suppose this arm might not enjoy as perfect repose as the other unexercised member, or even in the arm of a person in whom no muscular development had ever been attempted. Now because the hyperopic eye is accustomed in early life to exercise a more powerful accommodating force, there is no reason on earth for supposing it would not be more satisfactory to make complete correction of the error of refraction that called that force into play; and it is manifestly true, as every careful observer must in time learn by experience, that less than complete correction of hyperopia will not prove satisfactory to an eye that is constantly employed in the study of near objects.

The period of adaptation may be attended with some discomfort, but the final result will be all the more satisfaction, after full correction of the anomaly of refraction even though the occasional use of a mydriatic may be found necessary.

The work of Prof. Landolt is in many respects valuable. For the most part it is an accurate presentation of the prevailing opinions and the most recent advances in this branch of the science, and should, therefore, be in the hands of every student. It is certainly a masterly expression of the views of the French School of Ophthalmology.

CORRESPONDENCE AND SOCIETIES.

ASSOCIATION OF AMERICAN MEDICAL EDITORS.

[*The Medical Standard.*]

The American Medical Editors' Association meeting has come to be a recognized feature of the American Medical Association

meeting, and a most useful one. It has brought together medical editors from all sections of the country in an agreeable, social manner, and has thus acquainted them with the needs of the reading medical public. It has created an *esprit du corps* which tends to elevate medical journalism into a distinct profession, and to give it wider and wider scope. Already the enterprise of the lay press is more than equaled by the medical press, considering its limited field. There are many journalistic topics which could be fittingly and with advantage discussed by this Association, which are out of place in a general medical society. The able address by Dr. Shoemaker will, it is hoped, be one of a series of contributions to medical journalistic literature.

The annual meeting of this Association was held at the Palmer House on Monday evening, June 6th, at 8 o'clock. The following, many of whom will be recognized as identified with America's leading medical journals, were present: F. Dunlap, E. C. Spitzka, S. T. Armstrong, A. W. Harlan, J. W. Wassal, E. H. Gregory, I. N. Love, Dudley S. Reynolds, J. A. Larrabee, J. B. Hamilton, S. J. Jones, J. W. Lambert, Wm. Porter, Thos. McIlvaine, R. Newman, J. V. Shoemaker, Frank Woodbury, E. M. Read, G. S. Stubbs, Geo. H. Rohe, A. N. Bell, W. C. Wile, E. S. Graus, T. R. Barker, E. H. Whittemore, Jas. R. Taylor, H. E. Goodman, W. Goodman, W. H. Pancoast, Carl Von Klien, W. H. Wathen, E. O. Shakespeare, H. Edmundson, Judge Hull, J. W. Fox, I. M. Quinby, A. L. Fulton, Geo. Hally, W. Wyman, A. H. Ohman-Dumesnil, D. J. Roberts, Lester Hall, T. B. Lester, J. M. Toner, W. M. Carpenter, T. O.

Summers, W. G. Eggleston, Wm. Brodie, F. W. Wall, H. O. Walker, J. E. Harper, C. C. P. Silva, J. L. Gray, M. F. Coomes, J. G. Kiernan, W. C. Dulles, R. J. Dunglison, W. S. Stewart, F. C. Ferguson, T. B. Harvey, W. M. Alexander, C. W. Purdy, H. O. Marcy, E. W. Cushing, H. N. Moyer, J. S. Marshall, W. W. Allport, I. A. Watson, C. H. Boisliniere.

The minutes of the meeting held in St. Louis were read by the Secretary, Dr. Wm. Porter, of St. Louis. After being approved by the society, Dr. Wm. Brodie, of Detroit, said he thought it a matter of great importance that a record of those present be kept, and therefore moved that a list of those present be inscribed in the book by the Secretary. The Secretary said such motion had been anticipated and the book was ready for the signatures of the members.

Dr. J. V. Shoemaker, of Philadelphia, President, said it had been the custom since the organization for the retiring officers to give some sort of an address at the annual meeting.

The subject of the address was, with true instinct, given a title, "Some Thoughts on the Abuses in Medical Journalism:"

GENTLEMEN:—I propose in my remarks, which, as your President, it is my pleasing duty to make, to dwell upon some of the abuses that have crept into medical journalism, with the hope that, in calling your attention to them, it may cause an effort or two in the direction of their eradication, for, as Dr. Browning beautifully expresses it, the press is the

"Mightiest of the mighty means
On which the arm of progress leans;
Man's noblest mission to advance,
His woes assuage, his weal enhance,
His rights enforce, his wrongs redress,
MIGHTIEST OF MIGHTY IS THE PRESS."

True, it has a noble mission for man when it lends itself for good and not for evil, but alas! that it should be said of it, how often do we see, with painful feelings, the bad advocated, and the good decried!

But this should not be so. Our journals, in order to fulfill their mission properly, should rise to the highest plane of truthfulness, scorning alike the false and unreal, but nourishing with all their strength those who contribute to the enlightenment of our noble profession, and spend their energies in endeavors to elevate it to the highest pinnacle of scientific research!

"Who would ever care to do brave deed,
Or strive in virtue others to excel,
If none should yield his deserved meed—
Due praise—that is the spur of doing well?
For if good were not praised more than ill
None would choose goodness of his own free will."

And now, gentleman, I will turn to the subject-matter of my discourse, and speak first of what I shall term commercial medical journals. A commercial house having a large trade, and, as a consequence, considerable rivalry, after due consideration arrives at the conclusion that in order to outstrip its competitors it is necessary that the establishment should have a vehicle of its own, in the shape of a weekly, monthly, or quarterly publication, to sound the praises of their wares. The reasoning is somewhat thus:

"To make money is our object; to attain that end we must sell our productions at a handsome profit; we have already pushed, as far as allowable, in the regular medical issues those standard articles which are reliable and are well known for their intrinsic worth; but this does not satisfy us; there is not enough in it; others have the same facilities, and as we are manufacturing a line of medicines peculiar to ourselves it is essential that we should bring them to the notice of the public, and by constant laudation cause them to be bought." And then the question is asked, "Why not have a journal of our own, edited and published under our sole control? If we do not get many subscribers, which is a small matter in comparison with the insidious manner we will pursue in getting readers, it will pay very handsomely by sending it 'complimen-

tary' to every one who may be thoughtless enough to accept it. We will procure a prominent name or two as writers on scientific subjects, and then fill the rest of the columns at our own will, clipping from others occasionally as may serve our purpose." And thus the new journal is started for the express purpose of advertising poor drugs, inferior preparations, worthless instruments, and still more worthless books that are written, not for the experience they contain, but for the gain they may bring; and this is one of the abuses that will bring true medical journalism into disrepute if it is not frowned down by all honest medical journalists.

In connection with the above it would seem fit to call attention to the seeming innocent trap which is set for the publishers of some of our well-established scientific journals; and how readily they step into it! We allude to the disfigurement of their reading pages by the introduction between them of highly-colored leaves of flaming advertisements of certain specifics, etc., warranted to cure every evil to which mankind is liable.

I think it is decidedly desirable that an editor should have the entire control over the pages of the publication for which he assumes the responsibility of editing, and not be governed by the avarice of the publisher. The editor alone is held responsible by the reading public for its contents, and many is the wonder that he permits the best thoughts of his writers to be thus marred by the unsightly advertisements so nauseously displayed. The proprietor of the journal, even if he should hold the dual position of publisher and editor, in good taste, and in all honesty to his readers, should confine the advertisements to their appropriate place. In this I know I will be heartily indorsed by the profession generally.

Another abuse is the insertion, between items of general interest, of the peculiar value of medicines recommended as certain specifics for certain diseases by prominent physicians of this and other countries, and

giving as an indorsement the name of a leading journal, tending to the belief that it is the pronounced opinion of the editor, whereas it originally appeared as an advertisement. This is a flagrant wrong that should be promptly repressed. It is a gross injustice to all concerned from the beginning to the end.

Now there is another abuse of which I will speak: Some of the large and opulent publishers of medical works seem to think that editors are so anxious to possess their publications that it is not worth their while to pay postage or express charges on their books which they send to them for review, but expect a highly commendatory notice—and a lengthy one—for, often, a work of inconsiderable merit. And here, I think, we should join hands in sticking together. Look at it: Our publisher sends you the book for review, accompanied with the express or postage charge. You are expected to write an elaborate review of the book. To do it and yourself justice the time must be taken to read it carefully, and then give your opinion of it. After this is done it is printed in a prominent part of the journal, and as a matter of news, and all for what? I will let my fellow editors answer the question.

Now, gentlemen, I am about to touch upon a tender point; and to disarm criticism, I shall speak without "malice or prepense." I have noticed, while looking over my exchanges, in the editorial columns, that an asperity—or to modify the word, a want of amenity—occasionally appears when speaking of an "esteemed contemporary." Parenthetically, I may here remark, blushing, that I may have been at fault myself at times in this respect. But why should this be? I am sure there is not in the English language such a paucity of words that we can not express a difference of views without trenching upon good breeding or wounding the susceptibilities of our fellows. Let us all try hereafter to avoid the biting cutting style, and to remember that there is a gentle-

manly mode of carrying on a discussion, which generally wins in the end.

The speaker further counseled less arrogance in style of editorial thought and expression, and directed attention to the unfairness, not to say dishonesty, of printing articles from other journals without credit or with only an indefinite *Exchange* to indicate its paternity. The speaker closed with a brief reference to the International Medical Congress.

"As we all know, there has been a vast deal of bitter feeling engendered by some enterprising but disappointed gentlemen among a few of our profession, but as they have been relegated to the shades of private life it is unnecessary to refer to them any further. But, gentlemen, I particularly desire your attention to the necessity of all of us working in one harmonious whole to the making of the Congress a magnificent success. Every thing already tends to that end. But let me impress it upon your minds, in order to reach a triumph, it must be by work! hard work! and work unceasingly! You will have to put your best thoughts in your papers, for, I assure you, our foreign visitors are on their mettle, and are determined that they will not be put to the blush. Another thought uprises in my mind: I think it would be a happy idea for our Association to invite all medical editors, authors, and writers, both from this and foreign countries, who may be attending the meeting of the International Congress, to assemble together and form an international exchange of friendship, the reunions of which shall be synonymous with those of the International Congress. But be this as you think."

Dr. A. N. Bell, of New York, desired, before proceeding to other business, to move a vote of thanks to the President for his very suggestive, if laconic address, which was adopted as the sentiments of all present.

The President appointed H. O. Walker, Dudley S. Reynolds, and D. J. Roberts a committee on nominations.

Dr. J. L. Gray, chairman of committee

of arrangements, made his report, and stated that parlor "O" of the Palmer House had been placed at the disposal of the Editors' Association during the meeting.

Dr. W. C. Wile, of Philadelphia, moved that the officers of the society be appointed a committee to receive the medical editors from abroad at the International Congress at Washington, in September. Carried.

Dr. H. O. Walker made the report of the nominating committee. The officers elected were: President, Wm. Porter, of St. Louis; Vice-President, T. McIlvaine, of Peoria; Secretary, W. C. Wile, of Philadelphia.

The report was adopted.

The society then adjourned to the banquet hall.

THE BANQUET.

In the dining hall the tables were set in the form of a horse shoe; the menu was quite elaborate and the toasts quite numerous.

Dr. Wm. C. Wile, of Philadelphia, was appointed to take charge of a large bell to call the speakers to time.

Dr. J. L. Gray, of Chicago, acted as toast-master, first introducing Hon. O. H. Horton, corporation counsel of the city of Chicago, who, in a brief speech, dwelt upon the greatness of Chicago, and welcomed the medical profession to the city. He said it was not necessary to extend to them the freedom of the city, for in America every American had the freedom of every city. Dr. J. V. Shoemaker, the President, replied to the greeting in a few happy words.

The toast to the International Congress, "I'll bring the word straight, how 'tis like to go," was responded to by Dr. N. S. Davis, the President of the Congress. He said: "From the best evidences I can get, I feel the Congress will be a great success. I have been spending the entire day in meeting the executive committee of the Congress, and this is the final general meeting for the committee. We have received reports from committees, from officers of sections with reports of the numbers enlisted, and with

reports of papers, some of which are already in the hands of the sections. A great number are from the other side of the Atlantic as well as this, and the prospect is favorable in all respects. If I mistake not, the number directly and indirectly enlisted is not far from one thousand (applause), and about one half this number are from the other side of the Atlantic (bravo). They embrace men as high in their profession as in any part of the world." The speaker then briefly spoke of the opposition in the past toward the organization of the Congress, but said that opposition had almost entirely disappeared. In conclusion he extended a hearty invitation to all to go into the Congress, and unite in making it an honor to the medical profession of the United States.

The toast-master announced all speeches would be limited to five minutes and Dr. Wile had been appointed bell-ringer, and was provided with a large dinner bell which would be rung on appropriate occasions.

The toast, "The American Medical Association," was responded to, in the absence of the President of the Association, by Dr. H. O. Marcy, of Boston. In a few brief words he stated how the allegiance to the American Medical Association had been kept up; that a great many in the East not only were loyal, but always had been toward the American Medical Association and the International Congress.

In response to the toast, "The Editor," Dudley S. Reynolds, of Louisville, expressed his pleasure at meeting such an audience, saying no exposition of an editor's duties were necessary from him in the presence of an association of editors, many of them veterans in the profession, and predicted that upon returning the editorial pens would be wielded with a little more oil and less asperity.

The toast, "The Mind Cure," "Canst thou not minister to a mind diseased?" was appropriately responded to by Dr. T. B. Harvey, of Indianapolis, Ind.

Dr. I. N. Love, of St. Louis, the Presi-

dent of the Mississippi Valley Medical Association, responded in behalf of his society to the sentiment, "Come from the mountain top and the hill top, and rest in the valley." He thanked the management for the honor conferred upon him and upon the Mississippi Valley Medical Association in giving it recognition as one of the three great medical associations of the country. He thought much of the association, and might go on and enlarge on its importance did he not see a bell to his right. A belle usually has no terror for him; he loves them, but this bell has an unusually large clapper. (Laughter and applause.) The speaker happily referred to the prosperity of the Mississippi Valley Association.

Dr. W. H. Pancoast responded to the toast, "Medical Education." He gave a general resume of the progress of medical education in this country during the last decade; so that now it is not necessary to go to Europe for a good professional education.

The "Editorial Dude," by Frank Woodbury, of Philadelphia, who, in a pleasing and happy vein, called attention to some of the necessities for examination of certain members of the association. One member at least had a deformity in the shape of a wart in the back of his neck, in consequence of which he had discarded the collar button, using the wart in its stead. This, he thought, needed investigation.

"The Publisher" was responded to by W. C. Wile, of Philadelphia, who said he had weighty matters in his charge, inasmuch as he had to sleep with the President of the association (laughter). He protested it was no laughing matter. Two weeks ago he received word from the toast-master he was to talk on love. He knew more about love than any other man, and thought it a pity he could not express his sentiments under that head. He deprecated the calling attention to past grievances regarding the International Congress; the time had passed for any such work, and the thing to talk of now was the brilliant prospect of success.

Geo. H. Rhoe related a dream in which he tried to gain admittance to the higher regions as an editor, because Dudley Reynolds had passed in. St. Peter, however, when implored upon the ground that an editor had just entered, exclaimed in amazement, "Dudley Reynolds, he's no editor!" [Laughter.]

Dr. E. W. Cushing spoke in behalf of a new journal, "Vaginacology," established in Boston. Speeches of greater or lesser length were made by A. N. Bell, of the "Sanitarian," D. J. Roberts, "The silver-tongued orator of Nashville," and J. M. Taylor, New York.

The President-elect, on taking the chair, made grateful acknowledgment of the honor conferred on him.

Dr. J. B. Hamilton, of Washington, in a most happy manner, responded to the toast "Good Night."

The press was represented by Mr. Hunt, Secretary of the Chicago Press Club. He extended a cordial welcome to the members to visit his club, and to make themselves at home there. His address was well received.

A number of informal toasts were responded to, and when the last word was spoken it was generally agreed that, though "sweetness long drawn out," the affair was altogether a brilliant success. Though wine was not included in the printed menu, the omission appeared to be quite generally regarded as a typographical error which demanded prompt and more or less frequent correction.

THE SPIRIT OF

CONCILIATION.

At the recent meeting of the American Medical Association a new section entitled *Dermatology and Syphiology* was established. Professor John V. Shoemaker, of Philadelphia, was elected chairman; Dr. L. Duncan Bulkley, of New York, being present, Dr. Shoemaker resigned the chairmanship, and actively labored to secure Bulkley's election in order to win back a long absent member.

SECOND CONGRESS OF FRENCH SURGEONS.

BY

MARCEL BAUDOUIN.

Translated from *Le Progres Medical*, for PROGRESS,

BY

MRS. SALLIE E. MORRIS,
of Covington, Ky.

(CONCLUDED.)

The skin was ulcerated, following the elimination of primitive tubercular deposit of synovial sacs and the testicle to the outside through the opening produced. This explains why the operation that Syme, of Edinburgh, practiced

in the case of tubercular fungus has met with so much success. We know that he limits himself to returning the testicle into its habitual cavity, and in addition to sew up the scrotal envelope.

M. BERGER, of Paris, pointed out the manual of operating for the amputation of superior members in contiguity with the body he has determined upon, with the aid of M. Farabeuf. This interscapulo-thoracic amputation has been performed forty-nine times, and has given eighty per cent of success. The operating manual has been established in studying public observations. The important point is the section of the subclavicular vessels between two ligatures after the previous resection of the clavicle, which M. Ollier has first well shown.

M. OLLIER believes that in cases of tumor, necessitating this operation, one does as one can. It is not then often easy to employ the proceeding described by M. M. Farabeuf and Berger.

M. LANNELONGUE reports a case of the disjunction of the sutures of the skull upon an infant, and to this purpose recalls the published facts. What becomes of these disjunctions after the accident, ordinarily the consequence of a fracture of the skull? In certain cases the fissure enlarges by consecutive development of the skull, and can produce a slight hernia of the brain. In others it diminishes with the progress of age, with children at least, and one can ascertain the new production of osseous substance in its place. With children these disjunctives ordinarily make the length of the medio-frontal suture for

the coronal bone. This is explained by the development of this bone.

M. TILLAUX, of Paris, presented some reflections upon the suture of the nerves, and in particular that of the median nerve. A nerve being cut in the domain of the extremity may or may not have sensibility. If it exists it is because there are in the extremity threads of recurring sensibility. If it does not exist it is because there are none. The inferior end of the cut never becomes thin and slender. The superior end swells as a bulb or an olive, if the two ends remain far apart. If later the sensibility then absent from the domain of the extremity is re-established, it is because there has been nervous regeneration (experiences of Ravi-er upon animals; clinical statements of M. Tilleaux upon man).

M. TILLAUX claims that he has seen the primitive suture of a nerve at the moment of the accident permit the immediate re-establishment of sensibility in the domain of the periphery, while just before there was none. It should be admitted that there are new and interesting things which have never been stated by the physiologists, basing themselves upon practical experiments upon animals, besides being under bad conditions. This contradiction between physiology and *clinical* experience yet remains to be explained. On the other hand, the secondary suture also reunites perfectly to restore immediately the sensibility in the paralyzed part after cicatrization of both ends, even after fourteen years.

M. TILLAUX has seen this sensibility re-established. In conclusion, one ought always try to suture the nerve even a long time after the division. The result is not easy to explain. He concludes by indicating how one ought to practice this suture.

M. TRIPIER discusses, with discrimination, the physiological interpretations furnished by M. Tillaux.

M. VASLIN, of Angiers, of indications of trepanning in cerebral accidents, followed

by traumatic lesions of the skull fractures and contusions.

First observation. Traumatic epilepsy, followed by a sinking of the internal table, right parieto-frontal region, trepanning and extraction of deposit eight months after the accident. Cure.

Second observation. Phenomena of cerebral compulsion upon the right parieto-occipital region compressing the two tables, and the diploë followed by an evacuation of a purulent collection. Immediate cessation of the symptoms, followed by rapid cure.

M. LUCAS CHAMPONNIERE has ten times practiced resection of the knee, nine times for tubercular arthritis, once for deforming arthritis. This operation does not appear to him to be commendable for young children; although he does not often perform the operation upon patients over fifty years old, he has made one upon a man aged fifty-four years, and with success. It is necessary to have a good skin, presenting few fistulous orifices. The operation should be performed largely, and the tuberculous fungi should be removed with great care. He removes the drains from the fourth to tenth day; he carefully prepares a special dressing; exacts absolute immobility from the beginning, and amputates the thigh when the suppuration becomes abundant and has proceeded for some time.

M. DUMESNIL, of Rouen, made a resection of a knee, and observed following it a slow flexion of the leg, upon the thigh, but, without the osseous reunion, it may show itself in appearance.

M. OLLIER has practiced this operation about twelve years, and always amputated after fifty years of age, save in traumatic cases. He preserves the lateral ligaments of the knee when he can, and secures an antiseptic reunion without fever, unless it is immediate. He has seen a case analagous to that cited by M. Dumesnil. Many explanations of this fact have been given, described by German physicians. This flexion will be duelate, either to an irregular enlargement

of cartilage of conjunction sawed unequally upon one of the bones, or else to this, that the osseous reunion is often only apparent and fibrous, whence the flexion by drawing back the muscles of the thigh is possible.

M. DUMESNIL thought the second explanation only should be admitted in the case cited by him.

M. LERICHE, of Macon. This surgeon has performed the ablation of an enormous coccygeal tumor, constituted by a multilocular cyst, adhering to the intestine and to a three-lobed spina bifida. 2d. By a voluminous mass of adipose tissue, containing at its center a little fibroma, intestinal fistula following. This tumor has an analogy to that recently described to the Society of Surgeons by M. Kirmisson. It differs in having the appearance of a fatty mass, and especially by the cellular character of cystic proliferation of the ovary. It is not believed that one has been described of similar characteristics in this region.

M. PAMARD, of Avignon, has removed a tibia in a case of acute osteomyelitis. He shows the removed tibia, and the new tibia, which afterwards was produced. In the course of the operation he has been able to ascertain that the periosteum plays but a passive role in osteomyelitis.

M. OLLIER insists upon the interest of the information presented. We have seen how the tibia reproduces itself, and the process of ossification goes on in a manner independent of the periosteum.

M. MALHERBE, of Nantes, recalls that he has for many years already demonstrated the existence of epithelioma of bony origin, and that in the meantime this sort of tumor is not very well known. On the other hand, he proves that the sub-cutaneous tubercle is a myoma, or fibroma. All the tumors called thus, and which he has examined, present this histological structure.

M. LAGRANGE, of Bordeaux, has accomplished two resections for orthopedic purposes. In one case it was for an old dislocation of the hip-consecutive to a scarlati-

nous arthritis. This operation has not been practiced a very long time, but from to-day he thinks he is able to assert that it will be successful. In the second case the resection was made for a traumatic arthritis of the elbow. The patient was a man thirty-five years of age, who had received a shot-wound in the articulation of the left elbow. The first partial resection was made in 1882. Persistence of symptoms. In 1883 fistulous tracts penetrating the articulation, swelling of the humeral extremity and of the olecranon. In March, 1884, a complete subperiosteal resection of the articulation was made, according to the method of Ollier. The olecranon was half taken off, as well as the trochlea and the condyle of the humerus. The cure was rapid. The patient, unattended for twenty months, was restored to health, being able to use his arm in working. The olecranon was almost as large as the other side. (New formation of the olecranon.) Return almost complete of the normal movements, and the strength of the member. However, for several days the arm hung loosely at his side. This was because M. Lagrange did not remember that the muscles were greatly atrophied at the time of the operation. He then employed electricity, douches, and the massage treatment. To-day the patient is on the way to complete restoration.

M. MOLLIÉRE, of Lyons: Orthopedic resections are indicated, 'tis said, in congenital deformities, in the genu valgum and the genu varum and rachitic curvatures, in ankylosis, in cases of vicious cicatrix. (a) *Congenital Deformities*. The principle ones are: First, congenital dislocations of the hip; will pass that by. Second, club-feet. The extirpation of the astragalus and the cunifform section of the foot are operations almost inoffensive, it is true, but difficult, and in the main not exempt from mortality. So in club-feet that the foot may not be injured, he thinks in certain cases, at least, osteoclasy should be preferred to osteotomy. In these cases he practices osteoclasy *sus or*

intra-malleolaire, or osteoclasy of the tarsus; osteoclasy has never caused death with the apparatus of Robin. (b) *Genu Valgum and Varum*: He employs osteotomy above the condyle. (c) *Rachitics Curvatures*: Orthopedic resections for the lesions of the inferior member (tibia for example). Nevertheless he prefers osteoclasy to osteotomy, for instead of removing from the bone a bony corner, it adds another to it. But remember the straightening must be slow, not immediate. (d) *Ankylosis*: First. In ankylosis of the elbow from traumatism, with an articular suppuration (rheumatism, blennorrhœa, typhoid fever, scarlatina, etc.) he recommends the resection of the elbow, with immediate reunion without drainage. In cases of rheumatic ankylosis resection of the elbow produces bad results. Ankylosis reappears after the resection. Second, for ankylosis of the hip, resection of the large trochanter, the section would restore to the member its functions, but he prefers the osteoclasy. Third, the knee; the ankylosis to an obtuse angle, a right angle and even an acute angle can be raised again by osteoclasy, more or less elevated with gradual straightening. With the knee osteoclasy should be substituted for resection, save in cases of tuberculosis. If it is the question of a vicious cicatrix, osteoclasy must still be used, whether on a level with the *trimmed cal* or at a certain distance from the *cal* (osteoclasy of compensation). M. Mollière ends this communication in indicating that osteoclasy can be used besides in cases of deformities due to muscular deformations or to burns.

M. RECLUS, of Paris, made an osteoclasy with the Colin apparatus (or dressing). He operated for a rachitic curvature with retraction of the *triceps*. He was obliged to cut off by the sub-cutaneous method the tendons of this muscle after osteoclasy. Excellent results without employing the progressive straightening of M. Mollière were obtained.

M. VASLIN, of Angers, tried to straighten

club-feet by osteotomy, for to-day osteotomy is not dangerous, and one rarely dies from it, M. Mollière to the contrary. In one case he resected the ankle joint, in the other he made osteotomy of the third and fourth metatarsal bones. He obtained good results. In proof of which his patients who could not walk can actually walk seven to ten kilometres. He insists upon the variety of the medications in the treatment of club-feet. The operation is different in each case. Certain cases do not warrant osteoclasy.

M. LABBÉ, of Paris, cites a case of resection for club-foot, varus equinus, in which he made the extirpation of the anklebone, the section of the aponeurosis plantaris internus, and that of the tendo-achillis. Besides fearing the establishment of a focus of suppuration in a lacerated point, he made a counter-opening on the opposite side to the incision. This seemed to him worthy of being described. To-day his patient walks with perfect ease.

M. DOYEN, of Reims: Resection of the bones of the leg for a vicious cicatrix, with pseudarthrosis. A strong man of thirty-nine years broke his leg the 11th of January, 1886, the tibia in its inferior third, the fibula in its superior third. Apparatus of Scullet was used. Want of consolidation. Pseudarthrosis at the end of two and a half months; Osteotomy of the callous portion of the fibula; resection with the scissors of MacEwen of the callus of the tibia, the extremities of which are beveled and sutured with strong silk thread. Cure in three dressings, fifteen, thirty, and forty-five days after the operation. Delay of the consolidation, but it became perfect after a season at Bourbon Hot Springs. M. Doyen recommends in like cases the methodical resection of the callus and osteotomy with the MacEwen scissors, as being much superior to resection with the saw, which necessitates great shattering and throwing out fragments beyond the cutaneous incisions. The scissors of MacEwen, used by an experienced hand,

will perform section at the pleasure of the operator of the hardest diaphyses.

M. GROSS, of Nancy: In old cases of congenital varus, the principle obstacle to the straightening of the foot comes from the astragalus. It is this bone which presents the maximum of the deformity and of the displacement. It is partially dislocated in advance; has left the peronière. It is impossible to make it return to its primitive place, for its posterior part has become larger than the anterior part of the mortise of the tibio-fibular articulation. In short, its anterior part has no synovia, and adheres to the skin of the foot. It is then indicated in these cases to operate directly upon the deformed bone. With one subject, after performing *tenotomy* and aponirotomy, and massages had been used with dressing, in order to obtain favorable results, he had to practice the extirpation of the astragalus. There was no relapse. With another case not previously treated, the deformity was so plain that he utilized at once the same operation, took the addition of the resection of the anterior part of the calcaneum. One of his patients of the year before having died, he studied the unexpected modifications which appeared in the foot after the extirpation of the astragalus. This bone was replaced by fibrous tissue, in the middle of which existed some cartilaginous plates.

Between the resected calcaneum and the cuboid existed a false articulation, therefore he recommends the preservation of the calcaneum when it is possible. He said that the resection of the external maléolus would have been useless. Is it necessary in old cases of congenital varus to elevate the astragalus? Yes; for he had dissected a club-foot of a new-born child, and already at birth he found the astragalus deformed. Concerning adventitious club-feet of musculo-nervous origin, the resection of this bone appears to him useless; the sections of the muscles and the nerves ought to be sufficient. Nevertheless, if the as-

tragalus becomes diseased, it would be necessary to remove it.

M. ED. MARTIN, of Geneva, compares the orthopedic treatment of club-feet with the surgical treatment. He criticises the *puerigosecondi* of the present day—fights against the infatuation of those who wish to practice tenotomy to excess, or beyond measure to cut toward and against tendons, muscles, and bones. It is very plain that cutting is practiced a great deal too much, because the proper way to treat club-feet by the genuine orthopedy is not known. He cites results that M. Martin, of Lausanne, obtained in employing the orthopedic treatment of Venel, known since 1761. He insists upon the advantage of the shoe of Venel, massage, electricity (currents cut off and continuous) and gymnastics. The treatment of M. Martin comprises three periods. Period of preparation, consisting of manipulations, frictions, massage, and electrical applications. The object of this passive gymnastics is to try to put the foot back again into its normal position, the shoe of Venel is not sufficient except as modified by Jacquard and Martin; it should be put on in order to straighten it. Second period, called the straightening. Finally there is the period of convalescence (gymnastics bottines with dressing, etc). According to this author plaster dressing serving to immobilize the patients are bad, because they favor the atrophy of the muscles. There should be no hesitation in treating a club-foot so soon as a vigorous child has attained the age of four or five months. M. Martin gives then a classification of club-feet, and adds that surgical treatment, according to his opinion, is rarely indicated.

M. ANAGON, of Alençon, cites an observation going to prove that it is never necessary to despair of a cure of a club-foot with the orthopedic apparatus.

M. LÉORAT, of Lyons, recommends massages and the use of plaster dressings with openings for the application of the poles of an electric battery.

M. OLLIER proposes to compare osteoclasy with resection in the ankylosis of the hips and the knee. (a) In olden times, when the presence of a bony ankylosis of the hip was found, nothing could be done. At the present time—since 1869—and especially since the use of antiseptics, this is no longer the case, osteotomy or osteoclasy can and should be performed; observation demonstrates it—these operations being of remarkable benignity. Experiments made upon quadrupeds have shown that with them the typical resection of the neck of the femur and of the great trochanter has given very good results. How then can it be explained that with man this typical resection of the hip could be unadvisable? It is that a man is a biped. When this operation is performed upon him the piece descends per force, then osteotomy must be resorted to; practiced more or less far from the head of the femur, following the lesion, in a word, to the sub-trochanteric osteotomy with section of any deformed bone in order to correct the anomaly.

He performed this operation several times; among others, in one case for an ankylosis of the hip, the result of infectious osteitis. In spite of the bad state of the bones he could resect the femur about twelve centimetres from the femoral head, and to isolate the new wound from the focus which had been suppurating for a long time by aid of the strongest antiseptic. There was consolidation in three months, the limb being in a perfectly sound state, but there was some shortening. The shortening is inevitable in this sub-trochanteric osteotomy. Nevertheless he prefers this operation to the sub-trochanteric osteoclasy, for the bone can not always be fractured at the exact point wished. It is evident that osteoclasy would be simpler, but its great fault, the impossibility of making the fracture where one wishes, makes the bloody operation preferable, using the scissors to divide the bone.

Concerning bony ankylosis of the knee, M. Ollier recalls what he had said before; he

has performed the superior condylic osteoclasy and adheres to the position then taken. The instrumental appliances in use, the osteoclast of Robin, he can accept only for the ankylosis at an obtuse angle, and perhaps right angle, but he does not accept it for ankylosis at an acute angle. He considers it in these cases even dangerous, especially when there has been a prolonged suppuration of the knee. The orthopedic resection of the knee since the use of antiseptic dressings, it can be said, seldom results fatally, and moreover from the standpoint of the operator the results are certainly as good, if not better.

M. AUG. REVERDIN, of Geneva, shows photographs of a patient having dislocation of the hip. On one side he made a sub-trochanteric osteotomy, which was successful. The patient being able to walk by the intervention of this operation.

M. DANIEL MOLLIÈRE, of Lyons, protests against certain affirmations of M. Ollier. With the osteoclast of Robin the bone can be broken where one wishes, with mathematical certainty, and on the contrary osteoclasy above the condyles with him had always resulted favorably in ankylosis of the knee at an acute angle.

M. VERNEUIL wishes only to make known this fact that operations or maneuvers made upon some articulations formerly diseased would cause very grave symptoms to appear. In manipulating the coxalgics one runs the risk of causing the forming of a deadly military tuberculosis. So he recommends osteoclasy, and osteotomy made far enough from the diseased articulation. One ought always to bear in mind the nature of the anterior lesion.

M. OLLEIR maintains what he has said notwithstanding the opinion of M. Mollière.

M. POZZI, of Paris, shows two patients upon whom he had practiced the resection of the elbow with very good results, *functional* and *plastic*.

M. I. BÆKEL, of Strasbourg, reports briefly his statistics apropos of the ortho-

pedic resections which he has made. From 1875 to 1886 he made fifty-five resections; all the operations resulted in cures. He lays stress in closing upon the results of these operations.

M. DÉCÈS, of Reims, read an observation; in which he reports how he was led to practice the orthopedic resection of the two malléoli in a case of vicious cicatrix of the inferior extremities. He had no accidents, and the patient was perfectly cured; good functional result, for he can now walk; before he could not attend to any kind of business.

M. AUG. REVERDIN, of Geneva: Ligature of the primitive carotid. He relates a very interesting history of a wounded person who had received a ball from a revolver in his right ear. With the Trouvé apparatus they discovered the position of the ball fitted (or buried) in the bone. They tried to take it out, but succeeded only in causing a violent hemorrhage from the internal carotid in its intra-cranial portion. Instantly a ligature was made for the primitive carotid, and to divide this vessel between two ligatures. There was no syncope, no aphasia, no hemiplegia following this operation. An absolute cure in every respect was effected in a few days. Several weeks later, for the purpose of extracting the ball the patient was again put under the influence of ether, and the ball removed with the greatest facility. The patient was perfectly cured. In this case the extirpation of the projectile was attempted because the wound was infected, and because there was complicating fracture of the skull. What is interesting to note in this case is that after the ligature of the primitive carotid the hemorrhage was not reproduced in the upper extremity of the course of the internal carotid, and that there had been no cerebral accidents. The explanation of this seems to be the following: A coagulum was formed in the carotid canal, and obstructed the superior end. The clot remained by the aid of antiseptic precautions.

M. FONTAN, of Toulouse, cites an analogous fact. He asks if one could not in these cases tie only the internal carotid, this being easily accessible.

M. TÉDENAT, of Montpellier: Treatment of Hydrocele by incision of the sac and the excision of the vaginal tunic. The injection of iodine in the vaginal tunic as curative treatment of hydrocele appears to admit ten per cent of relapses. It is true that they are less frequent if the tincture of iodine is used pure or nearly so. The aseptic incision of the vaginal sac affords the best results, for the relapses are much rarer. It has been said that there never was mortality when the iodine injection was used. This is true, but some accidents not without importance have been noted; for example, the penetration of the injected liquid on the outside of the vaginal tunic followed by peri-vaginal suppuration. Now the absolutely aseptic incision induces no accidents, on condition, however, that aseptic should be most rigorous, which is difficult in a region so liable to accidents. Still incision should be reserved for cases when the hydrocele is caused by a chronic epididymitis, for cases in which the vaginal tunic is thickened has some calcified plates and is covered with false membrane. The injection should remain; the treatment in cases when there is very clear transparency, not forgetting that the injection can be very injurious when the cavity of the vagina presents prolongations and diverticula rising as high as the inguinal canal and even higher.

M. CUSSET, of Lyons, recalls the conclusions of his thesis propounded in 1877 upon the branchial and vertebrated apparatus from an anatomical and pathological point of view. He mentioned the principal works that have appeared up to this time, since then, upon the cysts and fissures, fistulas of branchial origin, citing among others the thesis of aggregation of Quenu (1886), the recent work of M. M. Lannelogue and Achard; also the doctorate thesis upon congenital fistulas of the neck. Since the pub-

lication of his inaugural thesis he has observed the following cases: First, branchial cyst of the right supra-auricular region, situated in the region of the first branchial cleft. Second, cyst of the right auricular region, the tumor having presented to the microscope the characteristics classed as cysts of the skin (first branchial cleft). Third, cyst of the lobe of the left ear. He also observed two (2) branchial fistules. First, fistula in the median line of the neck, with atrophy of the inferior maxillary; protuberance of the apophyses of the geniohyoid processes. The probe introduced into the fistula took the direction in the lower-down part, toward the sternum. He dissected the fistula in its course and found a cord running through the anterior mediastinum. He cut the cord a little beneath the breast-bone in order not to go too deep, and did not see any orifice. Two years afterward the cure appeared to be permanent. Bilateral branchial fistula upon the side of the neck, accompanied by mucous discharge. Operation: Cure. Upon an histological examination it was found that the wall of the passage was constituted as follows: First, epithelium. A deep bed of cylindrical cells. A shallow bed formed of two or three layers of flattened cells. This epidermic coating was comparable to the epidermis of a fetus six months old. It was a young skin. Second, the derma has a fibrous woof.

He then spoke of glandules with *acini*, excretory ducts, and also a sort of growth of *gianuzzi*. These glandules seem like cells of the pharynx and of the eppiglottis, and it is odd to find them so near to the skin, completely displaced.

M. CUSSET dwells upon these glandules from that the necessity, when one operates, of making an ablation with the bistoury as large as possible in going beyond the limits of the fistula.

M. TRELAT claims that tumors and branchial clefts are more common than they are believed to be. He has seen twenty in the

last six years, and the tumors were more frequent than the fistulas, since he has observed only three fistulas and seventeen tumors. The tumors are easily treated. In regard to fistulas, they often extend so far and present relations so important that it becomes difficult to dissect and destroy them. Sometimes there is no necessity to tamper with them, except scraping to avoid grave operations. The histological examination which he has made proves that the wall of these fistulas was, in general, a young skin, a fetal skin, but this is not always the case; sometimes he found only a connective tissue with some glands and debris of the bed of *couche Malpighi*. One can, in effect, see all the degrees of the destruction of the epidermis so well that he can find in the place only connective tissue and epithelial cells. In the sebaceous cysts, on the contrary, there is always a common connective envelope, and to the centre of the epithelial debris.

M. Pozzi, of Paris, indicated a little process that he had employed to facilitate the dissection of these fistulous passages. He transformed them into solid tumors by making a preliminary injection of parafine with iodoform, if desired.

M. PONCET, of Lyons: In certain varieties of cyst, thinks complete ablation is contraindicated (important relations of the tumors, etc). In such cases it is simply necessary to make the incision and modify the internal surface of the open cyst by caustic. Cauterization gives good results.

M. NEPVEU, of Paris, communicated an observation of a woman aged thirty-six years, who had a fall upon her hands. It produced a dislocation of the thumb, complicated by a wound, which was treated by immobilization in a non-aseptic dressing. Inflammatory symptoms some days after. Applications of poultices. Under the influence of this mode of dressing, appearance upon the hand first, then upon the forearm, the arm, and finally upon all the body, of *plates* of nettle-rash, of papula and of vesicles; no

fever. The eruption had been preceded by pains, spasms, painful contractions coming on by paroxysms in the hand, afterward the eruptions and pains disappeared. There had not been a trace of lymphangitis. After some days the eruption dried up. The liquid of the vesicles was examined and there were found bacteria in great abundance; a special diplococcus very agile, but which could not be cultivated. It resisted safranine but colored well with the colors of fuschine. Notice the succession of symptoms, injury, dislocation, arthritic suppuration, secondary neuritis and bacterial eruption at the point of the articular injury.

M. LABBÉ, of Paris, recounted to the members of the Congress how he had performed three operations of extirpation of the larynx, he being the first who had performed this operation in France. He dwelt upon the future of this operation, which is a new one, and will seem less dangerous when the manual operation is better known. The first time he performed this operation, he was very much impressed. The two others he performed with as much calmness as if he were operating for an ablation of the breast. In short, he was not at all alarmed. He could even say, starting from to-day, it is a simple operation.

First. His first case consisted of a great sarcomatous tumor developed in the interior of the larynx. He performed tracheotomy immediately. But one day the tumor passed from the larynx and developed itself in the pharynx in such a way that deglutition became impossible. The operation was done without difficulty, the tumor removed, and the patient cured. He died of an accidental pneumonia five months after the operation.

Second. In the second case he operated for epithelioma of the larynx with a carotid ganglion. The operation was easy. Meanwhile the patient succumbed, through a fault committed by a nurse. The canula used for the tracheotomy had not been properly changed during the night. He strug-

gled fifteen days, and died from infectious pneumonia.

Third. In the third case the patient was affected with a sarcomatous tumor of the internal face of the larynx, without ganglion. At the moment of isolating the larynx the patient swooned from the pinching of the pneumogastric or recurrent, and during twenty-six minutes remained in a state of apparent death. Artificial respiration enabled him to be brought back to life. He was perfectly cured, and lived four months. He succumbed to a recurrent sarcoma in the trachea. To sum up, we ought not at this day to reject *apriori* this operation. The manual of the operation is easy; survival is as possible in these cases as in cancers of the tongue, and there is a greater chance of cure for the mild tumors than for the tongue. The operation is indicated in cases of such tumors as sarcoma and epithelioma. There should generally be the preliminary tracheotomy several months before as low as possible, so as to leave a point of the skin between the wound of the tracheotomy and that which will be made in the extirpation of the larynx. Anesthesia will be obtained by chloroform with a sponge held at a level with the tracheal canula, and in order to avoid the flow of blood into the trachea one should use the canula of Tredelenbourg, taking care to fill with water, not with air, the little elastic sac which surrounds its extremity. It is indispensable to previously accustom the patient to tolerate tracheal contact of this canula in inflating the bulb, otherwise when it is applied for the first time during the operation it results in suffocation. The incision should be in the form of T, the horizontal branch corresponding to the hyoid bone; the other vertical descending one centimetre below the plane of the wound in the trachea. It should be made with a bistoury. It will be best to make the skin incision with the galvano-cautery. If used lightly a ligature will be unnecessary, and there will be no hemorrhage. When the larynx has been well isolated in the manner

of an encapsuled tumor, which one enucleates, it is cut from bottom to top with a galvano-cautery, and then separated from the esophagus. Finally it will be necessary to cut the thyroid membrane, preserving the epiglottis as much as possible to suture the wound high to stuff it with iodoformed dressings, and to place an esophageal sound to remain in the superior extremity of this conduit, placed there under the eye of the surgeon. Alimentation is possible from the 15th to the 20th day after the operation.

M. ASSAKY, of Lille: Of interrupted suture and of several surgical applications of animal graft. The continuity of two organs (tendons, nerves,) can be re-established when the apposition of the cut-surfaces is impossible by interrupted suture (*suture a distance*), that is to say by threads of cat-gut going from one to the other surface. M. B. Auger first practiced interrupted suture upon tendons with a silver thread. M. Gluck has substituted cat-gut. M. Assaky concluded, from his experimental researches made in collaboration with M. Fargin, that the interrupted suture of tendons permitted a more rapid return to functions than if it was not employed, as the tendons thus regenerated are larger and richer in tendinous fibres. With man the results can only be better, because in his case immobilization is possible. Interrupted suture, of nerves, serves to conduct the nervous filaments of new formation. If silk is employed, it will not be absorbed. The contrary is the case with cat-gut. Can one also attempt interrupted muscular suture? Theoretically, yes; and the same of bones. We know the importance of transverse directrices, and points of ossification. Perhaps it will be possible, in the same manner, to re-make articular ligaments after re-sections. Apropos of animal grafts, he cited experiments of tendinous grafts, which had fully succeeded when no one had yet obtained the nervous graft.

M. GUYON, of Paris: Diagnosis and treatment of tumors of the bladder.

Is any exploratory operation whatever necessary in order to diagnose a vesical tumor? *No*. It can be said that only the study of symptoms and an anatomical and clinical examination of the patient is sufficient in most cases. M. Guyon dwells upon the characteristics of symptomatic hematuria of a vesicle neoplasm and by comparison with symptoms of tumor of the kidneys (renal ballottement) symptomatic varicocele, etc. He then passed to the exploration of the bladder by the rectum, the vagina, and the use of the catheter and insists upon the small information obtained by the last method of examination. A vesical tumor being recognized, what should be done? It is necessary to operate as quickly as possible, as all the vesicle walls may become infiltrated with the neoplasm; to operate in the malignant as well as the mild tumors, but to remember this fact, that malignant tumors are nearly always followed by a relapse, but mild tumors are ordinarily cured. Mild tumors can remain a long time in the bladder without the patient suffering otherwise than by the passage of blood from the bladder in urinating remaining there, without infiltrating the walls of the urinal reservoir. One ought not to hesitate to interpose when he is in the presence of a complication. Cystitis, retention of the urine, etc. He thinks the tumor can only be properly removed by the hypogastric method.

M. TERRIER, of Paris: Radical cures of non-strangulated epigastric hernias. Until within a short time they have not treated hernias in France except by (truss) dressings. One ought not to operate upon these hernias, say the books. Meanwhile M. Terrier has performed upon four subjects an operation for the purpose of remedying this infirmity. And these four observations show that his intervention has been followed by full success, complete as was expected. Having accomplished what had been done before in foreign countries.

He makes a radical cure of these hernias as of other hernias. Cutaneous incision,

opening the sac, ablation of useless parts, mobilization and reduction of contents of sac suture of the opening after cleansing. He believes it well to thus intervene in cases where the hernia annoys the subject who has it. The operation in all these cases has put an end to the symptoms on the side of the digestive tube.

M. DESNOS, of Paris, has extirpated a papilloma from the bladder by the hypogastric method.

M. DALLY, of Paris, called the attention of the surgeons to the deflections of the spinal column too often left to the care of orthopedists. He discussed the pathology of these deformities of the vertebral column and pointed out the bad influence of school exercises too prolonged (writing, etc). The orthopedal corsets give bad results. One should demand the cure by more radical treatment, hygiene and gymnastics.

M. MAGITOT, of Paris, of metallic drainage from small diameters in the treatment of the cysts of the jaw. Spontaneous cysts of the jaw are recognized. Concerning their origin, he has for a long time written that it is one of the two following processes: 1st. The dental follicle during its embryonic period becomes cyst, its walls constituting the envelope of the pouch, whilst its contents always are found at a period variable with the evolution at the bottom of the cavity. This variety has received the name of follicular cyst, with this subdivision of cysts, it may be embryoplastic, or odontoplastic, or coronary, following the state of development of the organ included in the follicle. These are the odontomes of Broca. 2d. The periosteum which invests the root of the adult tooth, swells under the influence of an inflammatory state and becomes a cystic wall, while the radicular apex itself denuded, re-absorbed in part and wrinkled, invariably occupies the center and the bottom of the pouch. Upon the first mode of development, that of follicular cysts, all the sur-

geons seem to agree upon this theory. But it is not the same of the origin of the cysts called periostic. M. M. Verneuil, Reclus, and Mallassez, basing their hypothesis upon the constant presence of an epithelial lining upon the internal face of the cystic wall, have refused to the dental periosteum the exclusive role which M. Magitot assigns to it. For them there are the embryonic epithelial debris, the presence of which is so frequent in adult jaws, which becomes the point of departure from the cysts in question, whence the name of peridental cysts (Verneuil and Reclus) and paradental cysts of Mallassez. What treatment should be opposed to the cysts of the jaws? A former method in use in the last century and the first of this, until Dupuytren, consisted in the ablation, it might be total, it might be partial of the maxilla becoming encysted. A second method, that used by most of the surgeons, consists in a large opening of the encysted pocket by means of re-section of the osseous wall. The method of large openings which give excellent results, but causes meanwhile useless shatterings and produces deformities more or less great in the region operated upon. The method of metallic drainage with tubes of small diameter gives good results. These tubes are of a variable diameter, but all very narrow. The smallest have not more than two millimetres of diameter.

M. ROHMER, of Nancy, made a communication upon this subject. He briefly recalled all the experimental facts known. He himself made a certain number of experiments. He was constantly unsuccessful. In supposing the ocular graft possible in clinics, he should count upon the dangers of sympathetic ophthalmia. In resuming, the question should be judged by two classes of facts. 1st. The clinical facts, which contra-indicate ocular transplantation by reason of possible sympathetic ophthalmia, and elsewhere clearly observed in a case. 2d. Experimental facts, which show that atrophy of the globe is an inevi-

table consequence of transplantation and re-implantation even if sphacelous of the cornea could be avoided and if the ocular graft succeeded perfectly. It can then be concluded, 1st. That the ocular graft can not actually succeed, and to attempt it is an illusion which causes one to meet with check which is certainly near at hand. 2d. It has been contended that total graft of the eye is possible; but clinical observation shows that sympathetic ophthalmia threatens every moment and that it will destroy the illusion of a success which will be at best of short duration.

M. ABADIE, of Paris, of present methods of extracting cataracts. The process of Daviel consisting in extracting the cataract through a large section made in the cornea has been one of the greatest progressions in ocular surgery. One could charge to him, nevertheless, the exposing of the inclosed vitreous, the suppurations of the wound, and something still more grave, not being applicable to incomplete cataracts with slow evolution, and to those which had adhered to the iris. It is in order to remedy the greater part of these inconveniences that Graëfe invented the linear extraction with iridectomy. This new method of operating made rapid progress, and was employed almost exclusively throughout the entire world during fifteen years. No one seeks at the present to excise the iris and returns in short to the process of Daviel. Is this a return toward the past? Is it fashion, or caprice? Is it through a spirit of nationality that a French process is opposed to a German one? No, it is simply because recent therapeutic discoveries of the highest importance have permitted the triumph of the principal complications inherent formerly in the process of Daviel. The antiseptic washings permit the avoidance of suppuration of the wound. The anesthesia produced by cocaine facilitates the work of expelling the crystalline and of reducing the iris. Finally eserine, whether in the shape of salve or intra-ocular injections, keep the iris reduced and counteracts prolapsus. From that time in simple

cataract there is every advantage in not mutilating the iris and preserving the pupil intact. Extraction with iridectomy will be reserved for complicated cataracts.

M. GALEZOWSKI, of Paris, prayed that the members of the Congress would be willing to fix their attention for a moment upon a new operation which he designated under the name of "Ophthalmotomy, or sclerotomy posterior." It is indicated in hemorrhages of the vitreous body, when the sight is lost, by the sloughings of the retina, irido-choroiditis, in foreign bodies of the posterior part of the eye, finally in melano-sarcomatous tumors developed under the sclerotica. He has performed this operation fourteen times, and has had but two failures. He claims that it is the first operation made upon the posterior portion of the eye. One can be very daring in that which concerns this posterior segment, except in three points, which one must be careful in approaching; these are the optic nerve, the region of the macula (for fear of scotoma), and lastly, the ciliary zone. Apart from these three, there is no part less sensible to pain. In one case he extracted, with the aid of the magnet, after posterior sclerotomy, a piece of steel implanted in the posterior segment. There was a traumatic cataract which was operated upon consecutively. The patient recovered his sight, although there existed at the point where the section of the sclerotic was made traces of choroiditis. In another case where there was sloughing of the retina, he made the posterior sclerotomy between the right superior and the right external recti, and sutured retina and sclerotic. Superb result in a third subject having a tumor, melano-sarcoma about as large as the head of a pin, causing very painful shooting pains; he cut the sclerotic from end to end with a galvano-cautery, and destroyed this tumor. A small quantity of vitreous substance ran out, but the patient recovered, and his sight was re-established. However, in a case of hydatid cyst phlegmon of the eye followed and the eye was lost.

M. VASCHER: Sclerotomy posterior is an old operation since it is mentioned by Hippocrates; he had himself made five posterior sclerotomies for glaucoma.

M. MOLLIÈRE, of Lyons: Au point de vue of the intervention operation in irreducible dislocations of traumatic origin. It is necessary to distinguish first the small and large articulations. (a) In that which concerns all the small articulations there is no indication against the use of the antiseptic arthrotomy. (b) Large articulations as the hip he does not insist, having no personal experience upon this subject. Second: The shoulder. The dislocation is irreducible when there is an anatomical obstacle, an articular deformity opposing itself to the re-entrance of the humeral head in the glenoid cavity. When irreducibility is recognized, recourse can be had either to sections under the cuticle of the cicatricial bands and the tendons, or to systematic osteoclasy. The subcutaneous sections with tenotomy should be immediately followed by maneuvers of reduction. Osteoclasy has been utilized because it has been remarked that in cases of dislocation of the shoulder, with fracture of the bone and application of the inferior fragment into the glenoid cavity, the member was able to recover its functions. Finally the articulation or joint can be fully opened and the bony parts removed, which placed an obstacle to putting into place the displaced parts. Third: The elbow resection (sub-periosteal) is an operation so benign that it should always be attempted in irreducible cases. The sub-cutaneous sections are dangerous to the elbow. M. Mollière prefers in this case the partial resection; it preserves the olecranon, ordinarily sacrifices the capsule only of the radius and the inferior extremity of the humerus. This humeral resection leaves nothing to be desired with adults as well as with children and old persons. Fourth: The feet. In these dislocations osteoclasy should be made above the ankle-bone, in order to straighten the foot to permit the patient to walk.

M. TRÉLAT requests his colleagues to exhibit all the documents which are susceptible of throwing any light upon this obscure question; showing what course to pursue in irreducible dislocations of the hip. He cites several observations of these dislocations, showing the uncertainties and fallacies he has experienced when he was obliged to try reduction in these cases. A man, fifty-one years of age, had ileo-ischiatic dislocation, caused by a fall, with bruising, six months and a half before, shortening four centimetres; no disfigurement, but impossible to walk without a cane. Yet the two members remained parallel. In order to know what to do in the case, he made bibliographic research, and concluded from it that no one had been able to reduce a dislocation dating from more than three months by methods of force, the power reaching to more than three hundred kilogrammes. Hamilton, on the contrary, cites eleven cases in which reduction was obtained by gentle means. This seems paradoxical, but it can not be doubted. The older the dislocation the more one must guard against methods of force; and with the patient in question, the attempt with force was not successful. Why then is reduction impossible? Because the cotyloid cavity is rapidly covered by the fibers of the anterior muscles serving as a lid, and disappears owing to the disfigurement caused by dislocation. At the end of two months and a half, Volkmann found the cavity of the cotyla filled with stalactiform formations, and the pectinéi muscle was crosswise, held before it as a barrier. A. Cooper thought, moreover, that after two months it was dangerous to attempt the reduction of the hip, and the known cases of M. M. Broca and Tillaux show that the methods of exaggerated tractions can cause death to the patient by suppuration, first traumatic, and peritonitis following. It is known, however, that M. Pelaillon has reduced by arthrotomy a femoral head put out of joint at the end of forty-six days.

Conclusion: In recent dislocations force can be employed to overcome physiological obstacles. In old dislocations violent maneuvers must be guarded against. There is no case of cure by such methods after three months. At this stage recourse must be had (the diagnosis being established) to gentle means if one has not been successful, not to abandon the patient, but try arthroto-my with experiments of reduction, if the myotomies and tenotomies give no result. If the member is bent and walking impos-sible, have recourse to osteoclasy or osteoto-my with consecutive straightening.

M. BOUILLY, of Paris, relates the history of three patients in opposition to that which has just been said of certain old dislocations, said to be irreducible, could in reality be re-duced without recourse to bloody operations. In two of these cases (old dislocations of the elbow, one dating from four months and a half the other eight months and twenty days) he reduced the dislocations, using the powerful apparatus of M. Hennequin. In the third case the trouble was dislocation of the hip, dating from three months, in which the limb was bent forward. They prepared to perform osteotomy, when during the last efforts attempted for reduction they made a fracture of the femur at the union of the superior third with the middle third of the thigh, straightening and curing the immo-bility. Result, excellent. Nevertheless, osteotomy is indicated in like emergency.

M. TRELAT affirms that there are instances of reduction of dislocations of the elbow after a year, and that the two first observations of M. Bouilly are not notable. Why prefer osteotomy? Have they sufficient reasons? No.

M. VERRNEUIL reports that an accident analogous to that of M. Bouilly, happened to him in attempting to reduce a subpubic dislo-cation of the femur. The neck of the bone was fractured, after which the proper position of the limb was easily maintained. The same for the elbow. The fracture of the olecranon permits the replacing of the fore-arm in good position.

M. RECLUS, of Paris, claims that among infants presenting a backward dislocation of the elbow, irreducible, one can observe the return of all the movements of the arm and of the fore-arm, that is to say the re-es-tab-lishing of the function and even the re-es-tab-lishment of the articulation from a mor-phological point of view. He has seen with M. Trelat a case of this sort.

M. OLLIER: Rarely has one practiced the resection of the shoulder for an irreducible dislocation of this articulation. Neverthe-less this operation has been performed sev-eral times in England, in America, and in Germany. Seven cases have been known (five are cited in a thesis of Halle, admitted in 1885, one of M. Thomas, of Tours; one of M. Ollier). M. Ollier had to perform this operation and found that the capsule had grown over the glenoid cavity like a meniscus. After resection he had great diffi-culty to bring the humerus back into the gle-noid cavity by continuation of the muscular retraction which was effected slowly and progressively.

M. DOYEN, of Reims: Dislocation of the elbow. Ankylosis, arthrotomy, move-ments reproduced, presentation of the operation. A young girl sixteen years old dislocates her elbow backward and outward, at the end of three weeks irreducibility, four months after, ankylosis, almost com-plete, arthrotomy. Vertical incision ascend-ing the length of the tendon of the triceps section of this tendon very oblique. Insu-lation of the cubital nerve, opening of the articulation. The bony extremities are held immovable by cicatrized bands of a remark-able solidity. Cleansing of the articulation in managing the cartilages with encroute-ment. Hollowing out of the sigmoid cav-ities, olecranon and coronoid. Re-articula-tion, suture of the lateral ligaments, of the triceps, and of the skin. Immediate re-union in a single dressing of the wound. Reproduction of the movements in one hundred cases operated upon out of one hundred and twenty-five of the healthy side.

The patient examined in the hall of the Congress, presents no deep adherence of the cutaneous scar. The joint moves under the least friction. M. Doyen insists upon the method of operating which he first performed. His operation has given much better results than the reductions made by methods of force. In long standing dislocations of the elbow arthrotomy with cleansing of the cicatrized products is the method of choice if the point is to effect by mediation in irreducible dislocations. This method can be applied to all the regions. The oblique section of the muscles is the most favorable and facilitates reunion. Resections should be reserved for cases when the bony extremities are carious or necrosed.

M. DECES, of Reims, cites two cases of irreducible dislocations of the elbow treated by arthrotomy. He extols the transverse incision of the epitrochlear, which he prefers, because the articulation is seen better.

M. TRIPIER, of Lyons, with a subject suffering from fracture of the humeral head with dislocation he was obliged after efforts at reduction to attempt an operation in presence of complications on the side of the veins of the arm. The axillary pulse in effect no longer existed. This fact may be considered as a singular one. This man had fallen from a height of two meters; two days after he entered the Hotel Dieu, at Lyons, with a swelling from which it was easy to recognize the existence of a fracture of the humerus, but impossible to diagnose a dislocation. The limb was placed in a plaster cast of bonnet. After attempts of reductions repeated several times, together with pressure and squeezing, an operation with chloroform was decided upon, especially on account of vascular troubles. M. Tripier incised the anterior part of the arm-pit between the deltoid and the large pectoral. The capsule was intact. It was impossible to reduce the humeral head on account of the presence of bony fragments between the glenoid cavity and the head of the humerus. Not being able to extract

them, M. Tripier took out the head of the bone. A complete cure was the result. In the second case the subject was an individual who was run over and perhaps kicked by a vicious horse. Great ecchymosis upon the breast, no fractures of the ribs, coldness of the member. Ten days after phlyctenulæ were noticed on the arm and forearm, then gangrene due to the attrition of the hand and forearm in the wound or else to the atheromatous state of the patient, or to diabetes with which he was troubled. M. Tripier made the disjointure of the shoulder. There was slight abatement at first but serious phenomena followed and finally death. M. Tripier insists upon the vascular disorders and upon the indication and contra-indications of surgical intervention in these cases.

M. SEVEREANO, of Bucharest, relates three very interesting cases of shoulder dislocation. The first, because the dislocation was double. Second, because it was produced below and under the glenoid cavity. The third, because it is very rare; it was under the coracoid. He practiced resection in two cases for irreducible dislocations. 1st. Resection of the inferior extremity of the bone of the leg for a very pronounced forward dislocation of the foot; it was of long standing and impeded walking. A complete cure was effected. Dislocation of the hip. A woman thirty years of age had an ischio-iliac dislocation due to a fall on the ground. The limb was very much bent. He attempted the reduction by employing a power of four hundred kilos, which was exaggerated. He then made an incision of the femoral head, laid it bare and tried to force it into the cotyloid cavity. In spite of his great efforts he was unable to accomplish it. The capsule split below was twisted upon its axis, he was obliged to decapitate the femur. Thirty days after the patient was doing well, but since that time he has lost sight of her. M. Severeano proposes to replace in the apparatus used for the reduction of dislocations leather straps

for the skeins of cotton, which are very resistant and there is no risk of breaking.

M. OLLIER thinks that, *a priori*, in difficult cases of long standing, it is better to resect the femoral head than to cleanse the catyloid cavity filled with bony productions.

M. MAYAL, of Vienna, sends a memoire upon the operative treatment of irreducible dislocations of the elbow of long standing, a memoire upon which M. Pozzi, secretary general, gives a reading in his absence. (a). Upon the choice of the incision: 1st. Longitudinal (middle part of the olecranon)? No. The point is not distinctly seen. 2d. Transversal; this is an easy operation, but the dressing and accompanying operation complicated. 3d. He prefers two longitudinal incisions upon the sides of the olecranon. In this way one saves the cubital nerve and the tendons of the triceps. (b). Choice of the operation: 1st. Arthrotomy simple with consecutive reposition of the fragments. He recommends it because it is necessary to be preservative in surgery and to take special care when possible of the articular extremities. In five operations, he performed three arthrotomies. Resections, he has performed only once. (c). Choice of dressing or treatment of the wound, no reunion if the wound is left gaping, no drainage, antiseptic dressing changed only every six or seven days.

M. AUBERT: Various communications. 1st. Wound of the rectum from impalement. A fragment of the wood passed into the prevesical cavity, extirpation. 2d. Internal obstruction. Laparotomy, anus contrary to nature. Cured.

M. DUMESNIL, of Rouen, shows what influence the albuminuria can have in surgical operations, or rather says study the operative indications at the time of albuminuria. A man afflicted with osteitis of the knee suffered amputation of the thigh. Albuminous matter in the urine, diminishing of albuminuria from seven per cent to two per cent after the operation. This proves

that the albuminuria even symptomatic of a renal lesion is not always a contra-indication to an operation.

PROF. VULLLIET, of Geneva: This author has applied his method of dilatation to the curative and palliative treatment of uterine cancer. The advantages which he attributes to this method can be summed up in a more complete and exact register. 1st. Upon the intra-cavital lesions of cancer. 2d. Upon the operations and dressings practiced contrary to him. 3d. Upon the ulterior effect of said operations and dressings. After having dilated and established the extent of the lesion, M. Vulliet decides conformably whether the case should be treated curatively or palliatively. By the words "curative treatment," he means a treatment which ought to end in cicatrization. He does not give to them the signification of a radical cure. If the cancer is superficial, if it has not already infiltrated the neighboring tissues, Vulliet undertakes the curative treatment, which consists in repeated scrapings, with the scraper, at first with the nail, then in very energetic igneous and chemical cauterization concentrated upon the neoplasm. When the cancer is extended beyond the matrix Vulliet renounces the energetic scrapings; he then desires to economize the tissues. He uses a palliative treatment, which ought, first, to arrest organic waste; second, to stop septic decomposition; third, to allay the pains. This triple end is obtained, first, by moderate dilatation of the matrix; second, by the employment of antiseptic and deodorizing substances, such as iodoform and turpentine. M. Vulliet has had occasion to treat seventeen cases of uterine cancer by his method, nine of them were at once subjected to the palliative treatment. The minimum of the prolongation of life has been eighteen months, counting from the appearance of the first symptoms. The maximum has been three and one half years. No patient died from the complications due to the treatment used. One patient has been affected with

cancer for two and one half years, and meanwhile her condition is so good she conducts a school of children. Eight have been subjected to the curative treatment. With three the affection was retarded in its progress, but there had not been the desired cicatrization; they are now living; they are subjected to the palliative treatment. With five patients the cicatrization was perfect and durable. One died after eight months, but with acute pneumonia; four are living. One was cicatrized during fourteen months; the second, during nine months; the third, six months; the fourth, four months. With two patients the uterine cavity in consequence of the adhesion of the walls entirely disappeared. With another there remains but a small opening. We will learn in the future for how long a time these patients will be protected from relapses. Observe the conclusions of this communication: First, uterine cancer is in some cases a cicatrizable affection; second, the method of dilatation of the author places the operator in very favorable condition, either for obtaining this cicatrization when it is possible, or for proceeding with his palliative treatment if the affection is at the onset, or after an attempt with his curative treatment, discovered to be incurable.

M. BAZY, of Paris, communicated his views on the limits of lithotrity in the treatment of vesical calculi. Observe the resumé of this communication. 1st. Lithotrity is the method of choice in the treatment of vesical calculi. Cutting is a method of necessity. The contra-indications of lithotrity are drawn, not as one said at another time, from the state of the kidneys, but rather from the condition of the bladder, and from the volume and hardness of the stone. An aseptic condition of the urinary passages can be as well assured by lithotrity as by cutting, and traumatism can be reduced to a minimum by lithotrity. 4th. In order that in doubtful cases lithotrity may preserve its superiority, it is necessary, the more often, if not always, that the stone shall be evacuated

at a single sitting. 5th. When the bladder has for a long time been affected with inflammation, and when it will be necessary to secure a rapid passage of the products of secretion, the stone being besides voluminous, cutting will be better than lithotrity. 6th. In all other cases, the limits of lithotrity will be marked by the habits of the operator, the power of instruments, and also the resistance of the operator to fatigue. M. Bazy followed this communication with the observation of a patient from whom he had broken a calculus of 100 grammes with success, the patient having been able to get up four hours after the operation.

M. MARCHAND, of Paris: Surgical treatment of prolapsus uteri. This surgeon practiced the posterior colpo-perineorrhaphy in order to combat prolapsus uteri. This operation has been rarely practiced in France, nevertheless M. Marchand alone has performed it twelve times because he preferred it in these cases to hysterectomy, a proceeding too radical. The prolapsus uteri is due, it may be, to hypertrophy of the sub-vaginal neck, or may be from uterine tumors. The utero-sacral ligaments are relaxed, the vagina deformed and enlarged, its connections lost, the vulva is gaping. The operation of Alexander does not always give good results. The colpo-perineorrhaphy has been successful a certain number of times, especially when practiced at the same time with narrowing of the vulva. In twelve cases he has been unsuccessful.

M. PONCET read a work of M. Vincent, of Lyon, upon the resection of the hip in congenital luxations. Simple luxation is always amenable to the orthopedic corset. Double luxation with effacement of trochanterian protuberances should be treated by resection because the trochanters could not sustain the corset, but the resection should be only unilateral, and performed according to the method of Ollier. After this operation a corset can be applied. Orthopedic resection should not be made when the trochanters project. M. Poncet adds: Put

with these facts, the case of a patient who was affected with a fracture of the patella, and upon whom he made an arthrotomy in order to obtain a fibrous ankylosis. The patient was cured, and finally able to return to work.

M. COMBE, of Paris: Catarrh of maxillary sinus. The limits of its curability; its treatment by antiseptic powders and particularly by iodol. The only treatment of catarrh of the sinus consists in trepanning the cavity, the insertion of a metallic drainage tube of small diameter, and the application of antiseptic powders preceding the washings. Injections given through the nasal orifices are without any kind of action upon catarrh of the sinus. A catarrh, when the appearance of the first symptoms does not extend back more than eight days, can be cured in a week. If the patient is not subjected to treatment till after two months the same delay may be counted upon in obtaining a cure. If the treatment is not undertaken till after the lapse of six months after the first manifestation, cure is rarely obtained, and the patient is condemned nearly always to live with a drainage tube. Errors of diagnosis explain the delay which sometimes appears in surgical intervention. Faint-hearted patients sometimes recoil a long time from this small operation, taking hope from the least diminution in the flowing off, which is variable in quantity, especially with women. Example: A woman held out for eight months, and would not permit an operation till the end of the ninth month, after having consulted seventeen physicians. M. Combe thinks that in certain stubborn ulcers of the inferior turburated bone a great advantage may be obtained from injections introduced through the trepanned sinus.

Treatment: Injections with glycerine and carbolic acid; insufflations of powder of iodol. The odor of rotten fish is not perceived about the patient from the second day. On the fourth day the rejected matter has no more odor. On the eighth day the injections come out pure.

Vol. I, No. 12—45.

M. ROUTIER, of Paris, spoke of the danger of subcutaneous injections of morphine in strangulated hernia. He cited two cases (umbilical hernia) in which this deceptive means of treatment permitted temporizing in palliating the symptoms of strangulation, but it resulted in the presentation of the intestine at the time of kelotomy and extended plates of sphacelous. It is true that the alarming symptoms were mitigated by the morphine, but the treatment did not terminate the strangulation, and in employing it kelotomy was transformed into a grave operation. The intestine was already diseased when the operation was performed. It is necessary not to deceive one's self in the presence of strangulated hernia. It is necessary not to temporize, and not to leave the patient till after the reduction of the hernia.

M. REDON presented a new mode of antiseptic dressing by means of turf, the use of which is almost unknown in France, whilst foreigners have had a long experience with it. The turf is valuable because it can be made aseptic, and because it is endowed with remarkable porosity, and it has the capacity of enormous absorption.

M. APOSTOLLI, of Paris, made a communication upon the electrical treatment of uterine fibroma.

M. AUBERT, of Lyons, has made some experiments with the aid of lanoline in reference to its cutaneous absorption. Lanoline is a grease extracted from the wool-bearing animals, of which the synthesis has been made by Berthelot, and is a remarkable chemical, in this, that it results from a combination of acid grease with cholesterine. Liebreich thinks that lanoline favors cutaneous absorption of combined drugs, but the experience of M. Aubert leads him to a diametrically opposite conclusion. Lanoline not only retards cutaneous absorption but even completely clogs the skin and prevents it. It can be employed in surgery as a vehicle for any antiseptic whatever.

M. REDARD, of Paris, cites some interest-

ing observations on congenital deformities. Observation 1st. Syndactyl and ectrodactyl in a child. It presented at the same time an index, the base of which is hollowed into a regular furrow, and which is also deep. The circulation has, in the meantime, been good in this finger. The same furrow has the annular reduced to the third phalanx. The middle and the little fingers reunite over the atrophied annular: Upon the right hand multiple furrows to the annular: Histological analysis of these furrows. From the left to the inferior third, with difference of temperature in the two feet, left foot 27° C., right foot 21.5° C. Second observation: Absence of a patella in a child, very rare anomaly. M. Redard asked if the absence of the patella was congenital, or if the bone existed for sometime, in order to become so atrophied. Third observation: Child of fifteen months, very pronounced curvature of the tibia. Foot in valgus equinus, shortening of the member very noticeable (6c). He made two tenotomies of the tendon of Achilles, and used forced massage. The child can now walk.

M. JEANNEL, of Toulouse, insists upon the importance of histological examination of the frenums and grooves of the fingers of a child of which he spoke in the first observation. This examination has shown that the cause of the furrows was a partial atrophy of the skin, and that it did not proceed from a cicatrix.

M. BOISSEAU, of Paris, proposes to examine the interior of the cavities of the stomach, intestines, and bladder, and to this end has invented a method of lighting, to which he has given the name of *migaloscopy*. He presents successively a megaloscope stomachial, vescical and rectal. He lights the cavity with a little incandescent lamp. Unfortunately this instrument is very complex.

M. PEYROT, of Paris, communicates an observation on tuberculous panaris of the phalanx of the right middle finger in a man thir-

ty-one years old. Believing him to have a case of simple panaris, he cut, but later amputated the finger, after suspicion of tuberculosis. An histological examination developed the cause in clear tuberculous lesions.

THE THIRTY-
EIGHTH ANNUAL
MEETING OF
THE A. M. A.
OFFICERS FOR THE ENSUING
YEAR.

PRESIDENT—Dr. A. Y. P. Garnett, Dist. of Columbia.

VICE-PRESIDENTS—
Drs. Duncan Eve, Tenn.; Darwin Colvin, N. Y.; Charles J. O'Hagan, N. C.; A. Stedman, Col.

LIBRARIAN—Dr. C. H. A. Klienschmidt, D. C.

TREASURER—Dr. S. Dunglison, Pa.

ASSISTANT SECRETARY—Dr. Jos. Ransohoff, Ohio.

The place for next meeting is Cincinnati, on the second Tuesday in May, 1888. Chairman of Committee of Arrangements, with power to appoint members of Committee, W. W. Dawson, Cincinnati.

The Permanent Secretary read the officers for the Section on Dermatology and Syphilography, Chairman, L. D. Bulkley, N. Y.; Secretary, T. F. Dunlap, Kentucky.

Section on Obstetrics and Diseases of Women—Chairman, Eli Van de Warker, N. Y.; Secretary, E. W. Cushing, Mass.

Section on Anatomy and Surgery—Chairman, Donald McLean, Mich.; Secretary, B. A. Watson, N. J.

State Medicine—Chairman, H. B. Baker, Mich.; Secretary, S. T. Armstrong, Tenn.

Diseases of Children—Chairman, F. E. Waxham, Ill.; Secretary, W. B. Lawrence, Ark.

Oral and Dental Surgery—Chairman, J. Taft, Ohio; Secretary, E. S. Talbot, Ill.

Practice of Medicine, Materia Medica and Physiology—Chairman, A. B. Palmer, Mich.; Secretary, N. S. Davis, Jr., Ill.

On Medical Jurisprudence—Chairman, E. M. Reid, Md.; Secretary, C. B. Bell, Mass.

PROGRESS

A MEDICAL MAGAZINE. ISSUED MONTHLY

DUDLEY S. REYNOLDS, A. M., M. D., EDITOR.

D. W. RAYMOND, BUSINESS MANAGER.

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PROGRESS will be found on file at the American Exchange, 449 Strand, London; 35 Boulevard des Capucines, Paris; and at Berlin, Prussia.

THE REPRESENTATIVE NATIONAL MEDICAL ASSOCIATION.

At the meeting of American Medical Association at Chicago the second week in June, it was evident

that at no previous time in the history of the American Medical Association did it have a more truly national character. There seemed to be almost a unity of sentiment upon every question presented in the general sessions, while the meetings of the sections were very largely attended by the representative men in the various specialties throughout the entire country. A meeting of fifteen hundred delegates and prominent members of the American Medical Association does not indicate decay. On the contrary, such an assembly of representative men from the different sections of the country, representing Boston and San Francisco, with every important intermediate point, speak in more convincing terms than any language we might frame, that the great national character of this association is spreading, and that the profession in every section of the country is loyal to the cause. Medical societies are unlike the associations of men in other walks in life. They have no other object than to advance medical knowledge and to provide for united effort in the prosecution of strictly professional work. The sections in our national associ-

ation are so numerous as to include every legitimate specialty. That on ophthalmology and otology was attended by about one hundred of the ablest men in the country, while the other special sections were attended by equally large numbers; that on general surgery being larger by far than the so-called American Surgical Association. The section on Medicine in the American Medical Association numbers three times as many as attended the Association of American Physicians. How absurd it appears for a few men in one section of the country, organizing a local association, to call it the American Ophthalmological Society, the American Gynæcological Society, etc. In all the sessions of the American Medical Association the attendance in these departments largely outnumber the membership of these pretended national organizations.

THE ASSOCIATION OF AMERICAN MEDICAL EDITORS.

The presidency of the Association of American Medical Editors must pass from one section of the country to another annually to divest it of all appearance of a merely sectional body. At the meeting in 1886, Detroit presided; at the meeting in 1887, Philadelphia presided; at the meeting in 1888, St. Louis will preside. It is necessary to distribute this honor to different sections, and it should go to the extreme South or Southeast, or to New England next year. It is believed an important departure from the long established custom was inaugurated at Chicago in creating a permanent Secretaryship; and although it may be the very best presidential timber in the whole country is sent to preside at the desk, it must not be denied that even greater talent is needed in the executive office than in any other department of the association. Prof. William Porter, of the *St. Louis Weekly Review*, requires no introduction. He is a man of very superior ability, and one of the most finished editorial writers in this country; and, what is perhaps more import-

ant, Porter is a MAN amongst men. He is a natural leader, and will shed as much dignity and luster upon the profession of journalism as any other man in the Association. The profession of journalism is indeed to be congratulated upon the strength and the extent of its permanent organization.

AN INTERNATIONAL CONGRESS ON INEBRIETY.	The council of the English society for the study and cure of inebriety has completed arrangements for an International Medical Congress, to discuss the problems of inebriety from a medical and scientific standpoint, at Westminster Hall, London, July the 5th and 6th, 1887.
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At the close of the second day of the Congress a dinner will be served, and on the third day an excursion and reception given.

The distinguished persons who are to read papers, and whose names appear in the announcement, seem to indicate not only the international character, but the high intellectual order of the congress. Norman Kerr, M. D., F. L. S., is President. The vice-presidents, forty-eight in number, embrace the leading men of nearly every civilized country. It is to be hoped that much good will come from the deliberations of this congress.

FUNDS FOR THE CONGRESS.	The following acknowledgment is made public as a reminder that the Ninth International Medical Congress is not to be conducted without funds, and as an evidence of the efficiency of the secretary of the Kentucky State Medical Society:
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NINTH INTERNATIONAL MEDICAL CONGRESS. FINANCE COMMITTEE. R J. DUNGLISON, M. D., CHAIRMAN. PHILADELPHIA, June 23, 1887.
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Dr. Steele Bailey :

DEAR DOCTOR.—I have received with much gratification, your enclosure of \$250, June 17, the amount appropriated by the Kentucky State Medical Society to the funds of the Congress at its

recent meeting at Paducah. I have handed the amount to the Treasurer of the Congress.

With kind regards, yours very truly,
RICHARD J. DUNGLISON, *Chairman*

AN ASSAULT WITHOUT BATTERY.	The editor of PROGRESS is assailed for an ordinary criticism of a bound volume sent for review, entitled <i>The Transactions of the Texas State Medical Society</i> , 1886. The attack is contained in a pamphlet which is extensively circulated in the interior of Kentucky, and perhaps, elsewhere. That it may reach some who do not know the object of its wrath is evidently the fondest hope of its author. The character of the people engaged in such warfare is clearly set forth in their impotent publication.
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Our grateful thanks are due, meanwhile, the Kentucky State Medical Society, the Faculty of the Hospital College of Medicine, and various other medical and scientific associations for resolutions and other forms of expression of their approval and confidence.

DAILY ISSUE OF THE REGISTER.	<i>The Medical Register</i> of Philadelphia has completed its arrangements for full daily reports of the work done in the sections of the Ninth International Medical Congress. The enterprise of this journal should meet with the heartiest and most cordial support of the profession. The daily issues will not be general summaries merely from the programme, but accurately reported proceedings in the general sessions and in each of the several sections by experienced reporters.
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WM. C. WILE, A. M., M. D.	The old Center College of Kentucky at its recent commencement at Danville paid a well-merited tribute to the scholarly attainments of one of the brightest ornaments to journalism and the medical profession by conferring upon Wm. C. Wile, of Philadelphia, the honorary degree of Master of Arts.
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PUBLISHER'S DEPARTMENT.

In this portion of the Magazine will be found notes of many things of interest to the student and practitioner. PROGRESS will print advertisements of reputable houses only, and articles of merit; it will therefore be a courtesy and favor to us for our friends who may be influenced to inquiry, correspondence, or trial, as a result of an advertiser's announcement in PROGRESS, to make mention of the fact, and so give the best of evidence as to the value of our pages to those who favor us with their business.

W. H. MAY, M. D., No. 20 W. Twenty-fourth Street, New York City, March 23, says: I have had very successful results in the administration of BROMIDIA in cases having their origin in disorders of the nervous system, such as cholera infantum, paralysis, insomnia, etc. *But I find it to be of special value in treatment of delirium tremens, and the results of debauch*; it being retained upon the stomach and speedily controlling the most dangerous symptoms, and producing the desired calmness and sleep necessary when morphia and other soporifics have failed to do so, and thus rendering the disorder amenable to further treatment. Have also prescribed it successfully in the terrible state of nervous exhaustion due to opium habitues endeavoring to relinquish the habit. And, finally, as result of experience, I pronounce it the "Hypnotic *par excellence*."

A. M. CHORD, M. D., Logansport, Indiana.—Peacock's Bromides is a valuable remedy, and I can heartily recommend it to the profession where the use of such a preparation is indicated. It takes the place in our list of remedies that has long been needed. It is all that is claimed for it.

I WOULD respectfully suggest that Drexel's Malt be introduced into the Philadelphia Hospital Obstetrical Department and Nursery. The samples sent for trial gave satisfaction. JOHN M. KEATING.

March 19, 1886.

OUR friends South and Southwest will consult their interest by corresponding with Messrs. Hernstein & Prince, St. Louis, in reference to improved instruments, apparatus for deformities, etc. Mention PROGRESS.

THE page of this number next back cover is occupied by the announcement of Messrs. Parke, Davis & Co. The older practitioners all know, and the younger ones should be possessed of the same knowledge, that they are a liberal, reliable, and enterprising house, and their products have a reputation world-

wide and richly merited. We trust the friends of PROGRESS will test its indorsement of the firm liberally and often.

MR. GEO. A. NEWMAN, agent for the Eastern department for California Fig Syrup Co., has received very pronounced indorsements from the medical profession in Louisville, and desire to have practitioners, who have failed to test the preparation, write to him for samples. Mention PROGRESS.

THE house of McKesson & Robbins is one of the oldest, largest, and best in the country. Their advertisement of a new emmenagogue in this issue should be read with attention.

THE AMERICAN ACCIDENT CO. wants agents—through the South. Address the Secretary, J. B. Wells, 408 W. Main Street, Louisville, Ky.

PHYSICIANS are invited to write Hall & Ruckel, 218 Greenwich Street, New York, for samples of LYONS' TASTELESS QUININE Preparations. They will be sent free. Mention PROGRESS.

MESSRS. JAS. W. QUEEN & Co., of Philadelphia, are among the oldest houses in the country. Their reputation is of the best, and they are the right firm to correspond with in reference to *Mathematical, Optical, and Philosophical* instruments.

MR. J. W. FOWLER, the skillful and enterprising pharmacist of this city, who is continually supplying the practitioner with his new and efficient preparations, was the first man out of New York City to manufacture tablet triturates and hypodermic tablets. He has discovered a base that is very soluble and does not harden by age, and is perfectly harmless. He very deservedly secures the patronage of the leading physicians of the Southwest.

R. A. ROBINSON & Co.'s hypophosphites and wine coca are fully described in their advertisement. They publish the indorsement of several prominent physicians, who prescribe and recommend both preparations. Their lime juice and pepsin is a very agreeable and popular medicine.

DR. RUMBOLD'S instruments are manufactured only by Mr. E. T. Pelgree, of 409 Morgan Street, St. Louis. Our readers are referred to his announcement among our advertisements.

LISTERINE has been very improperly classed along with such commercial "disinfectants" as Labarraque's solution, bromochloralum, Platt's chlorides, and similar *germicides* usually relied upon for the *disinfection* of sewers, water-closets, and other receptacles of filth. According to the scientific definition the term "disinfection"—*i. e.*, the destruction of disease germs—Listerine was never designed as a germicide, but it claims to be what clinical experience has proven to be true—an essential and trustworthy *antiseptic* for internal and external use about the human body. To counteract the intestinal putrefactive processes in diarrhea it is especially to be recommended.

Practice.

DR. THOS. LITTLE, of Spirit Lake, Iowa, in comparing Papine with other forms of Opium, says: "I have been using Papine for the past two months. It meets the requirements of a class in which opiates are indicated, but in which the 'remedy is worse than the disease.' One case in particular has given me a great deal of trouble for years. I have tried opium in every form, and many other narcotics, alone and in combination; but constipation, nausea and nervous prostration have been the invariable results. Some two months since I obtained some Papine and commenced on this case with the happiest effect; no nausea, no constipation, no prostration. I have been prescribing it in my practice since with the greatest satisfaction to myself and my patients."

DURING the past two years I have been using Listerine very freely in my Dental practice, and can not speak too highly of its merits as an antiseptic; while it is certainly the most elegant and reliable preparation I have ever employed.

ALLEN E. BRADLEY, D. D. S.
Norwich, N. Y.

MACON, JEFFERSON CO.,
ARK., Sept. 14, 1886. }
Messrs. Arthur Peter & Co., Louisville, Ky.:
I have given SYRUPUS ROBORANS a fair

trial on a case of debility of over twelve months standing. It has made a radical change in him (Mr. William Simmons), he was so weak and had almost lost the *motor* power of his muscular system, that he could hardly walk at all. He had giddiness, swelling of the stomach after meals, and pains more or less all over the whole system, which symptoms have all left him, and he says he begins to feel himself once more. As soon as he has gone far enough with the medicine, I will make him describe the action himself, which he is perfectly willing to do. I have not used but three ounces of the "ROBORANS" on him as yet. I am much pleased with the medicine and I think it will stand high with the profession if they will give it a fair trial.

Respectfully,

JOHN F. EATON, M. D.

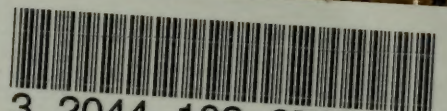
FROM an article on The Feeding of Infants Deprived of the Breast Milk, by J. Lewis Smith, Clinical Professor of Diseases of Children, Bellevue Hospital Medical College. No physician should recommend a food as he would not a medicine, without knowing its composition, and the composition of most of the recent dietetic preparations, ending with Carnrick's, has been announced. Carnrick's food contains a large percentage of the solid constituents of milk, the casein of which has been partially digested so as to resemble the casein of human milk in its behavior under the digestive ferment. The other ingredient is stated to be wheat flour subjected to prolonged baking, so that its starch is to a considerable extent converted into dextrine. This food has the advantage of easy preparation in the nursery, and easy digestion. Used alone it is sufficiently nutritious for the infant. It will probably supersede some of the older foods of the shops. Poor families who can not afford to use it as the sole food, will, according to my observation, find it useful made into a thin gruel and employed in diluting the cow's milk with which these infants are fed.

QUEEN & CO. 924 CHEST. ST.



PHILADELPHIA, PA.

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